

The Commonwealth of Massachusetts  
Executive Office of Energy and Environmental Affairs

**Massachusetts Department of Environmental Protection**

ONE WINTER STREET  
BOSTON, MASSACHUSETTS 02108

**REQUEST FOR RESPONSE**

**FEDERAL FISCAL YEAR 2021 SECTION 604(b) WATER QUALITY  
MANAGEMENT PLANNING GRANT PROGRAM**

**Agency Document Numbers:**

COMMBUYS Bid #: BD-21-1045-BWR00-BWR02-58045

February 18, 2021

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**2. Grant Summary**

**A. Overview and Goals of Grant**

The Department of Environmental Protection (“MassDEP” or the “Department”), Bureau of Water Resources, is pleased to issue this Request for Responses (“RFR”) for Section 604(b) Water Quality Management Planning Program Grants for Federal Fiscal Year 2021 (“FFY2021”). MassDEP is seeking grant proposals from eligible entities that identify nonpoint source water quality issues, determine the most effective solutions, and provide preliminary designs for Best Management Practices to address the identified issues.

This RFR contains eligibility requirements, funding priorities, selection criteria, the procurement schedule, and a checklist for a completed FFY2021 Section 604(b) Application.

**B. Procurement Scope and Description**

Section 604(b) of the federal Clean Water Act (“CWA”) authorizes the awarding of funds through the U.S. Environmental Protection Agency (“EPA”) to states for water quality assessment and management planning grants. The 1987 amendments to the CWA mandated that 40% of each state's award be awarded as subgrants to Regional Public Comprehensive Planning Organizations and Interstate Organizations.

MassDEP expects to have available approximately \$220,000 in total grant funds from the EPA to put towards new projects in FFY2021. A match of funds is not required for Section 604(b) projects; however, the inclusion of a match of either cash or in-kind services may increase the competitiveness of a submitted proposal by demonstrating local commitment to the project. Projects are expected to utilize firms that qualify as Disadvantaged Minority Owned Businesses (4.2% of the total project budget) and Disadvantaged Women Owned Businesses (4.5% of the total project budget).

For FFY2021, MassDEP will focus Section 604(b) grant funds on nonpoint source assessment and planning projects that result in the following:

- Development of Watershed-based Plans (“WBPs”) for local watershed planning and to support future Section 319 grant implementation projects. An online tool to support development of WBPs can be found at: <http://prj.geosyntec.com/MassDEPWBP>;
- Development of preliminary designs and implementation plans that will address water quality impairments in impaired watersheds;
- Development of Watershed-based Plans for Section 319 grant Healthy Waterbody Projects to be used to guide watershed protection and management activities.
- Determination of the nature, extent, and causes of water quality problems and determination of pollutant load reductions necessary to meet water quality standards; or
- Development of green infrastructure projects that manage wet weather events to maintain or restore natural hydrology.

Assessment work performed under the Section 604(b) program must address assessment information needs (pathogens, nutrients, metals, etc.) contained in the Massachusetts Integrated List of Waters (Section 303(d) List). The 2016 Integrated List of Waters and a listing of TMDL reports are available on

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the MassDEP Web Site at: <https://www.mass.gov/total-maximum-daily-loads-tmdls>. Additionally, MassDEP's Water Quality Assessment reports for select watersheds are available at: <https://www.mass.gov/service-details/water-quality-assessments>.

Priority will be given to assessment type activities that will result in information that can be used by MassDEP to support additional water quality assessment work and/or to help develop recommendations relative to future nonpoint source pollution Best Management Practice(s) ("BMPs") implementation projects and management strategies for restoration and protection of surface water and groundwater resources. Each project must include a public awareness component involving coordinated efforts with local boards, town officials and other appropriate interest groups and agencies working in the area.

Please note that after the February 18, 2021 RFR release date, MassDEP staff and all Commonwealth employees will only respond to administrative questions and provide copies of reference documents. Staff are prohibited from assisting potential applicants in developing specific Section 604(b) proposals.

This RFR has been announced electronically using the Commonwealth's electronic procurement system, (COMMBUYS). The Request for Responses and any additional information can be found on the MassDEP Grants and Financial Assistance: Watersheds & Water Quality page, <https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality>

**C. Grant Announcement Calendar and Grant Application Deadline**

Applications are due by **Wednesday April 14, 2021 at 5:00 p.m.**

PROCUREMENT EVENT	DATE
Upcoming Grant Announcement Posted (Notice of Grant Opportunity posted on MassDEP website and COMMBUYS)	Wednesday, January 27, 2021
Pre-RFR Remote Informational meeting (online via Zoom; details provided in Notice of Grant Opportunity)	Wednesday February 10, 2021 at 10:00 a.m.
RFR Release Date (posted on MassDEP website and COMMBUYS)	<b>Thursday, February 18, 2021</b>
Deadline for submission of written questions	<b>Tuesday March 2, 2021 at 5:00 p.m.</b>
Answers to Questions posted on MassDEP website	Thursday, March 18, 2021
Grant Application due date	<b>Wednesday April 14, 2021 at 5:00 p.m.</b>
Announcement of RFR Grant selection results (estimated) (posted on MassDEP website and COMMBUYS)	Thursday, July 01, 2021
Contract Start Date	Autumn/Winter 2021

*Applicants will be notified on or about July 2021 as to the results of the Department's project review and selection process. The Department recommends selected projects to the EPA for funding approval. After the EPA has approved the project recommendations, the Department will enter into contract negotiations with the selected applicants. The Department reserves the right to fund a portion of a project, revise the project scope, and/or add or delete tasks to any project proposal that is recommended to the EPA. Applicants will*

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*have the option of rejecting the Section 604(b) award if a project, as revised, does not meet their capacity or the goals of their organization.*

**D. Written Questions**

Written questions must be submitted in writing by email to the Section 604(b) Interim Grant Program Manager, Patricia Arp, at [patricia.arp@mass.gov](mailto:patricia.arp@mass.gov) and must be received by the deadline of **Tuesday March 2, 2021 at 5:00 p.m.** MassDEP anticipates that its official answers to all questions will be posted on the MassDEP Website (<https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality>) by Thursday, March 18, 2021.

**3. Eligibility**

**A. Eligible Applicants**

Pursuant to Section 604(b) of the Clean Water Act, eligible grant applicants include: regional planning agencies, council of governments, counties, conservation districts, and cities and towns.

- Subcontracting: Applicants may propose a subcontractor or team of subcontractors as part of their application and proposal. Subcontractors working for the applicant are subject to the same terms and conditions as the applicant, as defined in this RFR.
- Multiple applications: An eligible applicant may submit more than one proposal for distinct water quality projects.

**B. Eligible & Priority Projects**

Watershed based nonpoint source assessment and planning projects are eligible for funding under the FFY2021 Section 604(b) Program. Higher priority will be given to the following watershed based nonpoint source assessment and planning projects:

- **Development of Watershed-based Plans** – EPA requires nine-element watershed based plans to support implementation projects that are funded through Section 319 of the CWA. The development of one or more watershed-based plans at the sub-watershed level can be carried out using Section 604(b) funds. MassDEP has developed a web-based tool to assist with development of 9-element watershed-based plans for lakes, rivers, and estuaries. The WBP tool can be found at: <http://prj.geosyntec.com/MassDEPWBP>.
- **Development of Implementation Plans** – Implementation plans include conceptual drawings and engineering studies, which can be submitted for funding to other grant sources that will lead to remediation of water quality impairments and restoration of beneficial uses.
- **Development of Watershed-based Plans- Healthy Waterbodies** - Healthy Waterbody Projects include a watershed-based plan which is used to guide watershed protection and management activities. The main types of projects which will be eligible for funding include:
  - Streams: Geomorphology and Habitat Improvement
  - Streams: Nutrient, Sediment, and Pathogen Pollution Reduction

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Applicants should note that proposed Healthy Waterbody Projects in the waterbodies identified in Appendix G, Table 3 will be considered to be more competitive. See Appendix G for further eligibility information.

- **Water Quality Assessment** – Identification and characterization of a specific nonpoint source pollution problem site or resource of particular concern via water quality sampling. Results should be used to develop recommendations and conceptual designs for BMP implementation projects and management strategies consistent with the Department’s policies and programs. Projects that propose to conduct water quality sampling will be required to provide or develop a MassDEP and EPA approved Quality Assurance Project Plan (“QAPP”). Additional information on QAPPs can be found at the following MassDEP web page: <https://www.mass.gov/guides/water-quality-monitoring-for-volunteers>
- **Green Infrastructure & Low Impact Development** – Assessment of water quality issues and development of conceptual designs for projects that manage wet weather events to maintain and restore natural hydrology. Other project examples include: green streets, water reuse projects, porous pavement, bioretention, tree box filters, hydromodification to establish or restore riparian buffers, floodplains, or wetlands, and retrofit programs, including downspout disconnection to keep wet weather out of all types of storm sewers.

The most competitive projects for this grant program will:

- Identify sources of water quality impairment due to nonpoint source pollution in high priority waterbodies.
- Use watershed-based plans to build partnerships and build capacity as well as identify water quality remediation or protection strategies in high priority waterbodies.
- Link the proposed BMP to the pollutant of concern and impact to targeted water resources.
- Consider long-term resiliency to climate change impacts in site prioritization, design, siting, and selection of BMPs.

The goals of this grant program include, but are not limited to:

- Identify the sources of impairment to impaired waterbodies (waterbodies listed on the State’s Integrated List of (Impaired) Waters ([www.mass.gov/lists/integrated-lists-of-waters-related-reports](http://www.mass.gov/lists/integrated-lists-of-waters-related-reports))).
- Remediate pollution impaired waterbodies and partially or fully restore segments not meeting the Surface Water Quality Standards.
- Support projects, such as watershed-based plans, implementation plans and BMP designs that they can be used as basis for future Section 319 projects.

All proposals shall provide a locus map of the project area, and a detailed map of the project area. The proposal should include the Section 303(d) listing from the 2016 Integrated List of Waters with the specific water quality impairment(s) for the project area. Other Water Quality data collected for the project area should be summarized in the proposal (See Appendix D for additional resources).

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The types of projects that received Section 604(b) funding in previous years are provided in Project Summaries available at: <https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality>

or from the Section 604(b) Interim Program Manager. Projects are expected to commence within approximately eight (8) months of the notice of grant award and be completed within two years of receipt of the Notice to Proceed letter.

### **C. MassDEP Priority Waterbodies and Watersheds**

Eligible entities should be aware that MassDEP has identified priority waterbodies and watersheds (described below). Eligible entities may identify such waters in their geographic area as targets for proposed project locations. Proposed projects in the following areas will be viewed by the MassDEP grant team as a higher priority for funding:

- Waterbodies identified in Appendix E: 2021 Priority Segments.
- Waterbodies in the following [National Water Quality Initiative](#) (NWQI) HUC12 watersheds: Unkety Brook-Nashua River Watershed (HUCID: 010700040402), Upper Manhan River (HUCID: 010802010608), South River (010802030501), Westport River Watershed (HUCID: 010900020501 and 010900020502).
- Waters assessed as impaired for harmful algal blooms, in Category 5 of the Final 2016 Massachusetts Integrated List of Waters (available at <https://www.mass.gov/media/1638446/>).
- Waterbodies identified in Appendix F or waters in which Massachusetts Department of Health (MA DPH) issued a beach closure advisory due to harmful algal blooms within the last 5 years (with project areas located in areas with recent advisories considered highest priority)
- For the Development of Watershed-based Plans- Healthy Waterbodies project category, proposed projects in waterbodies identified in Appendix G, Table 3.

### **D. Ineligible Projects/Scope of Work**

The following projects and/or scopes of work are ineligible for funding under the Section 604(b) grant program:

- Projects that would be undertaken to comply with local, State, or Federal governmental enforcement actions, such as Administrative Orders or Consent Orders.
- Projects to implement specific requirements of National Pollutant Discharge Elimination System ("NPDES") storm water permits.
- Remediation of non-stormwater discharges related to "point source" problems, such as the repair of illegal sewer line connections or upgrades to sewage treatment facilities.
- Projects which focus solely on flooding remediation.

Application scores will be used to rank applications and will determine which applications will proceed to subsequent stages of the evaluation and/or enter into negotiations with the Commonwealth to receive a contract award.

## **4. Procurement and Grant Contract Information**

### **A. Procurement for Grant Contracts**

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Solicitations and procurements are governed by specific Commonwealth regulations, and where federal funding is employed, also by federal requirements contained in the federal grant that issues the funds to the Commonwealth.

Projects awarded as part of this funding opportunity will be awarded as a grant. The regulation governing this procurement is 815 CMR 2.00, with some provisions of 801 CMR 21.00. The terms of 815 CMR 2.00: Grants and Subsidies and 801 CMR 21.00: Procurement of Commodities and Services are incorporated by reference into this Grant Opportunity/Announcement. Words used in this Grant Opportunity document shall have the meanings defined in 815 CMR 2.00 and, where applicable, in 801 CMR 21.00 Definitions.

**B. Total Anticipated Duration of Grant Contract(s)**

The base period of the grant contract is approximately two (2) years, with a potential for two (2) additional one-year renewal options, for a maximum grant contract period of four (4) years. No agreements for services may be executed after the grant contract has expired. Extension of the base contract term is at the sole discretion of MassDEP.

**C. Funding Availability, Budgeting Guidelines & Allowable Expenditures**

The total anticipated available funding for water quality projects under this Grant Announcement is \$220,000. Grant contracts will have a maximum obligation amount. MassDEP is under no obligation to disburse a specific sum of funding. There is no guarantee that funding will be awarded. All grant contracts shall be subject to available funding. Ten percent (10%) retainage is withheld from each invoice submitted during the course of the project. MassDEP pays the retainage to the Grantee once all deliverables are received and the contract is closed out.

MassDEP will only reimburse costs and expenses that relate directly to the proposed water quality project and that will be incurred if the project is implemented. For grant contracts that are implemented under this Grant Opportunity, changes to the Scope of Services will require a formal grant contract amendment; however, shifts in budget amounts between line items that do not substantively alter the Scope of Services may be considered to be administrative changes that will not require a formal grant contract amendment, but may require a project change order. The decision as to whether a grant contract amendment is required is solely within the discretion of the MassDEP Section 604(b) Program Manager. See Attachment C (Supplemental Terms and Conditions) Section 3 (Compensation and Payment of Grant Funds) for additional requirements and restrictions on payment.

**D. Matching Funds**

Matching funds are not required for a project to be eligible for funding; however, MassDEP encourages applications that leverage additional funding and/or in-kind services because it extends the availability of Section 604(b) funds and therefore increases the resource benefits provided to the public by the funds. If a cash or in-kind match will be provided by an entity outside the applicant's organization, a letter from the authorized agent of the match provider must be submitted by the Grant Application due date, stating a commitment to provide the match.

**E. Grant Contract Award**

Funding for projects selected under this Grant Announcement will be through a grant contract issued and administered by MassDEP's Section 604(b) Program. MassDEP may fund multiple awards to multiple organizations within the limits of the available funding. However, MassDEP could award all of the



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funding for a single project, depending on the number of applications received, the results of the evaluation, and ranking of the applications and projected costs.

Projects that are awarded a grant contract shall abide by the terms and conditions set forth in Section 6 (Terms and Conditions) and the additional terms and conditions set forth in Attachment C (Supplemental Terms and Conditions) of this RFR. Additionally, final grant contracts are subject to successful negotiation of the Final Scope of Services. Grant contracts are not final until MassDEP and the Grantee signatories have signed the Commonwealth's Standard Contract form, and the Section 604(b) Program Manager has issued a written Notice to Proceed.

MassDEP does not guarantee that any grant contracts may result from this Grant Announcement, or that any particular funding amount will be awarded. It is anticipated that projects could commence immediately upon MassDEP's award of a contract. Awarded contracts will be reviewed during the contract term and, upon request by the Grantee, may be extended or otherwise amended at the sole discretion of MassDEP. Any extension granted will not necessarily change, or increase, the monetary value of the contract.

**F. Applicant Communication with MassDEP and the Commonwealth**

Applicants are prohibited from communicating directly with any employee of MassDEP regarding this Grant Opportunity except as specified in this RFR, and no other individual Commonwealth employee or representative is authorized to provide any information or respond to any question or inquiry concerning this RFR. Applicants may contact the contact person for this RFR in the event this RFR is incomplete or the applicant is having trouble obtaining any required attachments. Note that there is an open period to submit written questions up to the deadline specified in this RFR. MassDEP's response to questions from all prospective applicants that are pertinent to this procurement will be answered and posted on the MassDEP website.

**G. Grant Announcement Distribution Method**

A Notice of Upcoming Grant Opportunity has been distributed electronically using the Commonwealth's electronic procurement and solicitation website COMMBUYS (posted on January 27, 2021) and the MassDEP Grants and Financial Assistance: Watersheds & Water Quality website, (<https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality#604b-grant-program:-water-quality-management-planning->). This RFR and all the attachments were posted to COMMBUYS on February 18, 2021 and on the MassDEP web page. It is the responsibility of every Applicant to check the MassDEP website for any addenda or modifications to the Grant Announcement to which they intend to respond. The Commonwealth of Massachusetts and its subdivisions accept no liability and will provide no accommodations to Applicants who fail to check for amendments to the Grant Announcement and/or submit inadequate or incorrect responses.

**H. Prohibition of Changes to the Grant Announcement/Application**

Applicants may not alter the Grant Announcement language or any Grant Announcement component files. Those submitting an application must respond in accordance with the Grant Announcement directions and complete only those sections that prompt an Applicant for a response. Modifications to the body of this Grant Announcement, specifications, terms and conditions, or which change the intent of this Grant Announcement are prohibited. Any unauthorized alterations will cause rejection of the response by the MassDEP. If an Applicant finds an error where a change may be required, the Applicant should immediately contact the MassDEP Contact listed in Section 2D of this Grant Announcement.

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**I. Failure to Provide a Complete and Compliant Application**

Applications that are incomplete and/or non-compliant with the requirements stated in this RFR are subject to rejection by the Grant Review Team (“GRT”).

**J. Reasonable Accommodation**

Applicants with disabilities or hardships that seek reasonable accommodation, which may include the receipt of information in an alternative format, must communicate such requests in writing to Michelle Waters-Ekanem, the Director of Diversity/Civil Rights, at One Winter Street, Boston, MA 02108 (617-292-5751, TTY# MassRelay Service 1-800-439-2370, or Michelle.Waters-Ekanem@mass.gov). Requests for accommodation will be addressed on a case-by-case basis.

**K. Selection for Award of a Grant Contract**

Applications that are determined to be eligible for grant funding as described in this RFR and meet the evaluation criteria and the terms and conditions of the Grant Contract, as determined by the GRT, may be awarded a Grant Contract. However, the grant funds available for water quality projects have a definite limit, as stated in Section 2 of this RFR. If applications are received that meet the eligibility and other requirements and goals for this procurement, but the total projected costs for all eligible responses exceed the available funding, the GRT will evaluate and rank the submittals to ensure the funding limits will not be exceeded. In this case, the GRT will use the Commonwealth “best value” evaluation methods to select those projects that will be awarded grants under this RFR to ensure the total grant funding limit will not be exceeded.

Failure of the Applicant to be awarded a grant under this RFR shall not eliminate their eligibility or consideration for any future potential grant funds that may be available through the Section 604(b) Program.

**L. Affirmative Action Requirements**

In order for a proposal to be considered complete and responsive to this RFR, applicants must provide with their proposals the appropriate Equal Employment Opportunity/Affirmative Action (EEO/AA) and Disadvantaged Minority/Women Business Enterprise (D/MBE or D/WBE) information listed below. Additional information is found in Attachment B.

For proposals, each applicant **must** provide a **signed EEO/AA Policy Statement** on the organization's letterhead, which outlines its company's/agency's commitment to EEO/AA as a company/agency objective of equal importance to other company/agency objectives. Please refer to the EEO/AA Requirements and EEO/AA Policy Guidance Statement in Attachment B.

**Disadvantaged Business Enterprise (DBE) Utilization Requirements**

Regardless of the dollar value of a project awarded, the Section 604(b) Grant Program requires that any prime contracts or subcontracts for services, construction, goods or equipment procured by a Grantee to implement the project funded from the Grant must contain the applicable Federal “Fair Share” DBE Utilization Goals.

For firms to qualify under the DBE Program, they must be both **socially** and **economically** disadvantaged, citizens of the United States, and certified as a DBE by the Supplier Diversity Office (SDO). Women and certain minorities are presumed to be socially disadvantaged. The economic

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disadvantage is measured by the owner's initial and continuing personal net worth of less than \$1,320,000.

Because the Clean Water Act requires the use of Minority Business Enterprises (MBEs) and Women Business Enterprises (WBEs) these firms should still be utilized, but they must also be certified as DBEs. **In essence, the regulations mean that only a subset of the universe of MBEs and WBEs can be counted toward the Fair Share goals – those who are also certified as DBEs.**

The **DBE utilization goals are 4.2% D/MBE and 4.5% D/WBE**, respectively, for any subcontract for services, construction, goods or equipment.

For the purposes of being awarded a Grant pursuant to this RFR, all applicants must include a written Statement of Intent in their proposals (on their organization's letterhead) which clearly acknowledges that the applicant, as Grantee, shall comply with the DBE utilization requirements contained in this RFR, during the implementation of its project. The proposed project budget contained in the applicant's proposal must also identify specific expense categories (with associated dollar amounts) that the applicant expects to procure to meet or exceed the applicable D/MBE and D/WBE goals during project implementation.

**All Applicants must clearly indicate in their proposed budgets the specific tasks with dollar amounts that will be used to meet or exceed the DBE "Fair Share" requirement described above.**

## **5. Instructions for Submitting an Application**

### **A. Evaluation Criteria**

Applicants must submit a completed application that includes all the required supporting materials, agree to the program conditions, and meet the eligibility requirements in order to be considered for a grant award. An interagency review committee will evaluate proposed projects based upon the criteria listed below. The review committee reserves the right to reject any or all proposals.

**Evaluation Criteria Components:** The review committee will evaluate and score the grant applications from Eligible Entities (as defined previously in this Grant Opportunity) based upon the following criteria:

#### **1. Concise Problem Definition (15 pts)**

The review will focus on the clarity of problem identification. Focus of the review will include:

- Does the applicant present a clearly defined nonpoint source pollution problem?
- Are the problem areas(s) and nature of problem(s) clearly identified?
- Does the proposal present or cite adequate data to support the description of the problem?
- Is an impaired waterbody identified, with a description of the specific impairment?

#### **2. Project Goals and Approach (20 pts)**

The review will focus on clearly identified project goals and the quality of the approach to the problem, including discrete project deliverables with clearly defined results. Review will include but not be limited to the following questions as applicable:

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- Does the proposal contain a reasonable technical approach?
- Does the project plan present a logical, coordinated approach to the problem(s)?
- Are the deliverables clearly stated and described?
- Is the approach appropriate or suitable to address the nonpoint source problem and meet the project goals?
- Are QAPPs provided as required?

This section shall include a narrative response (see Attachment A: Project Goals and Approach) and must also use the format provided in Attachment A– Scope of Services.

**3. Project Budget (Cost effectiveness of the proposal) (15 pts)**

Detail the anticipated cost associated with the proposed project. Proposals should demonstrate a realistic understanding of project costs by providing a budget with detailed and credible cost estimates. Provision of a local match, whether in the form of cash or in-kind services, while not required by Section 604(b), can increase the competitiveness of a proposal by demonstrating local commitment to the project. Review will include but not be limited to the following questions as applicable:

- Is the total cost and distribution of costs by budget categories reasonable for the work proposed? (e.g., offers good value)
- Are the project goals proportional to the allotted resources?
- If included does cost sharing enhance the proposal?
- Are the Disadvantaged Minority/Women Business Enterprise (DM/WBE) goals clearly identified?
- Are potential DM/WBE firms identified?

This section shall include a narrative response as appropriate and must include a project budget which is summarized in the format found in Attachment A:– Project Budget.

**4. Project Timeline (5 pts)**

How well does the applicant describe the timeline for the proposed work? Is the project timeline reasonable?

This section shall include a narrative response as appropriate and must include a project timeline which is summarized in the format found in Attachment A - Project Milestone Schedule.

**5. Qualifications of Organization and Project Manager (10 pts)**

The quality of the organization and personnel to satisfactorily carry out the work identified in the proposal will be examined. The applicant's past performance in conducting projects funded under this or other grant programs administered by MassDEP and other EEA Agencies will be part of the evaluation process. Review will focus on:

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- How does the applicant describe the qualifications of the organization and the project manager to carry out the proposed project?
- Is the applicant adequately staffed?
- Are the key personnel identified qualified, with a focus on the ability successfully carry out tasks identified in the project approach, including the scope of work?
- Was the applicant's performance on past projects, including timelines, budgets, accurate invoice submittal and deliverables, consistently met in a timely manner?

**6. Project Benefit (20 pts)**

The applicant's likelihood of success for the proposed project, including the usefulness of the resulting products, and proposed implementation strategies, will be considered. Review will focus on:

- What is the likelihood of success for the proposed project: usefulness of the resulting deliverables and proposed implementation strategies?
- Extent to which the project, scope of services and targeted watersheds would further MassDEP priorities
- Does the project build on other projects or regional efforts?
- Does the project promote collaboration and inclusive information sharing among multiple communities and stakeholders?
- Are the deliverables set up in a way that they can be used in a future Section 319 project?
- Is there a strong level of commitment from project partners and stakeholders? Are letters of support from project partners and watershed groups submitted?

**7. Environmental Justice (5 pts)**

Does a proposal outline how environmental justice communities would benefit from and be involved in the proposed project? Does the proposal outline specifically identify which environmental justice communities or organizations are included in the proposed project? Are new partnerships being formed to benefit environmental justice communities? Information on which communities are classified as environmental justice communities can be found at <https://www.mass.gov/info-details/environmental-justice-communities-in-massachusetts>.

**8. Quality and Responsiveness of the Proposal (10 pts)**

Review will focus on completeness, organization, and conciseness including the following:

- Does the project fit within the purpose of the Nonpoint Source (NPS) Program?
- Is the proposed workplan well organized and concise?
- Is the application complete, and have all requested materials been submitted? (See Sections 5B. and 5 C. below.)

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**B. Requirements For Application Structure and Content**

**Complete proposals will consist of a concise application and all supporting materials in accordance with the following requirements:**

- **A Concise Application *not to exceed 12 single-sided pages*** documenting compliance with all the evaluation criteria listed in **Evaluation Criteria** above. The 12-page application limit includes only those items responsive to #1-8 in Evaluation Criteria, and also includes both a descriptive narrative and all completed application template documents found in Attachment A. (See the Evaluation Criteria in Section 5A for more detail on the eight listed evaluation criteria).
- To assist applicants, the completed 12-page application will include the following components:
  - Administrative Summary (Attachment A format);
  - Concise Problem Definition (narrative description);
  - Project Goals and Approach (narrative description and Attachment A: Scope of Services format);
  - Project Budget (Cost effectiveness of the proposal) (narrative description and Attachment A: Project Budget format);
  - Project Timeline (narrative description and Attachment A: Project Milestone Schedule);
  - Qualifications of Organization and Project Manager (narrative description);
  - Project Benefit (narrative description); and
  - Environmental Justice (narrative description).
- **Required Supporting Materials** (*not counted towards 12-page application limit*)
  - locus map of the project area, and a detailed map of the project area
  - If a cash or in-kind match will be provided by an entity outside the applicant's organization, a letter from the authorized agent of the match provider must be submitted by the Grant Application due date, stating a commitment to provide the match.
  - Letters of support from all organizations identified in the project proposal as participating in the project or providing a portion of the matching funds for the project. These letters must: be written on the organization's letterhead, be signed by the organization's authorized signatory, and detail the services or match to be provided by the organization. Letters of support from participating entities should be included with the proposal submission and must be received by the April 14, 2021, 5 p.m. deadline.
  - An executed Equal Opportunity/Affirmation Action Policy Statement (sample provided in this RFR). See Attachment B of this RFR for further information and sample forms.
  - Written Statement of Intent acknowledging the obligation to meet or exceed fair share goals (sample provided in this RFR). See Attachment B of this RFR for further information and sample forms.
- **Recommended Additional Supporting Materials** (*not counted towards 12-page application limit*):
  - Resumes for key project staff
  - A statement of support from appropriate local authority(ies) and stakeholder group(s), e.g., Conservation Commission, DPW, watershed organizations, etc.

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- Maps, resource/classification information, and a summary of water quality data pertinent to the project

**C. Application Submission Instructions**

**Please note that only electronic submissions will be accepted for the FFY21 Section 604(b) Grant Program.** Applicants must include all the documents required in the application and follow the specified format. Submitted proposals should consist of a concise application of no more than **12 single-sided pages**, which excludes additional supporting materials such as plans, maps, photos, summarized water quality data, and letters of support, as described in further detail in Section 5B above. Applications that exceed the 12-page limit requirements (excluding required supporting materials), or submissions that are unreadable, will not be reviewed by the GRT.

Reviewers will only receive electronic copies of proposals. Therefore, applicants must ensure that the materials transmitted through email can be viewed. Large-scale plans are discouraged, but if these plans are essential to the applicant's proposal, please contact the Section 604(b) Interim Grant Program Manager for submittal instructions.

All grant applicants must include all required items in their application and submit the packet electronically including both:

- a) a Word (.docx) version of the proposal narrative and application form, plus
- b) a (.pdf) version of the complete proposal, including all forms, attachments, match commitments, and support letters.

Electronic application copies, limited to 10MB, shall be emailed by the deadline [in both Word (.docx) and scanned (.pdf) formats] **by Wednesday April 14, 2021 at 5 p.m to:**

Patricia Arp, Section 604(b) Interim Grant Program Manager

Submit applications to [patricia.arp@mass.gov](mailto:patricia.arp@mass.gov) with the applicant's name AND "FFY2021 604b Grant Application" in the subject line.

Applications received after the deadline will be rejected automatically. MassDEP reserves the right to reject any and all proposals or request additional information if needed.

**D. Additional Required Documentation:**

**Additional Forms:** If selected for a grant award, the applicant will be required to submit the following forms to complete the contracting process. Forms with an asterisk (\*) need not be submitted, if they have been completed previously, reflect the most up to date form and are already on file with the Commonwealth:

- Commonwealth Standard Contract Form, filled out and signed by the applicant  
<http://www.macomptroller.info/comptroller/docs/forms/contracts/StandardContractForm-.docx>
- Commonwealth Terms and Conditions  
<http://www.macomptroller.info/comptroller/docs/forms/contracts/CommonwealthTermsAndConditions.pdf>. These Terms and Conditions are incorporated by reference into the Standard Contract Form, and do not need to be executed separately.

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- Commonwealth W-9 tax information form filled out and signed by the applicant with DUNS number and Federal Tax ID(\*)  
<http://www.macomptroller.info/comptroller/docs/forms/vendorcustomer/newmass-w9.pdf>
- Completed Contractor Authorized Signatory Listing Form  
<https://www.macomptroller.org/forms>
- Electronic Funds Transfer (EFT) form (\*)  
<https://www.mass.gov/doc/electronic-funds-transfer-form-2/download>

Applicants are encouraged to review these forms prior to submission of an application. The Commonwealth Forms are located on the Massachusetts Comptroller's website at the following link:  
<https://www.macomptroller.org/forms>.

**Additional requirement for Grantees:** In order to comply with new regulations all successful grantees receiving federal funds from state agencies must submit a new W-9 which must include your DUNS identifier (Dunn & Bradstreet Unique Numbering System). If your organization does not have a DUNS number it is highly recommended to obtain one as soon as possible to prevent avoidable delays in contracting, if chosen for grant award. Here is a link to a website for applying for a DUNS number  
<http://fedgov.dnb.com/webform>.

## **6. Terms and Conditions of Grant Contract Award**

Any Grant Applicant receiving an award must comply with the following requirements:

### **A. Commonwealth Terms and Conditions**

The general terms and conditions for this contract are set forth in the following standard Commonwealth documents:

Commonwealth of Massachusetts Standard Contract Form, which incorporates by reference the Standard Contract Form Instructions, Contractor Certifications and Commonwealth Terms and Conditions.

The terms and conditions contained in these documents supersede any and all other terms that may be defined explicitly or implied in this Grant Announcement. It is important that the entity submitting proposals fully understand all of the terms and conditions contained in these documents, and the referenced terms in these documents and how the terms apply to their agency, organization or business. A Grantee that fails to comply with the terms and conditions required by this Grant may be terminated from the contract.

### **B. Supplemental Terms and Conditions**

Supplemental terms and conditions are requirements that are specific to the contracts resulting from this RFR. The Supplemental Terms and Conditions are provided in Attachment C (Supplemental Terms and Conditions).

### **C. Additional Requirements**



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In addition to complying with the requirements of this section, any Applicant receiving a Grant Award must adhere to all requirements of the grant application, and all documentation submitted in support of that application. If, after award of a Grant to a recipient, the GRT receives information that there has been a material omission or misrepresentation by the Applicant regarding any aspect of the proposed project, this may constitute grounds for invalidating the Grant award.

**7. Definitions**

The following definitions supplement the definitions provided in Code of Massachusetts Regulations, 801 CMR 21.00 (Procurement of Commodities and Services) and 815 CMR 2.00 (Grants and Subsidies). These definitions are used for this solicitation and may be used throughout implementation of the grant contract after award:

**Applicant:** An Applicant is any entity identified in Section 3A of this Grant Announcement that responds to this Grant Announcement with a completed application, including the work and cost plan, and other required documentation as specified herein. For definition purposes, an Applicant is the same as a “bidder” as defined in 801 CMR 21.00 (Procurement of Commodities and Services).

**Bureau of Water Resources (BWR):** The Bureau within MassDEP that is responsible for the procurement and implementation of this contract. MassDEP’s Section 604(b) Program Manager, Program Coordinator, and Contract Manager are assigned to BWR, Division of Watershed Management.

**COMMBUYS:** The Commonwealth’s eProcurement Access and Solicitation Website (COMMBUYS) is a free, around-the-clock internet access site that provides bid/solicitation/procurement documents for all goods and services that are available either on existing Commonwealth state-wide contracts or are issued by other Eligible Entities of the Commonwealth of Massachusetts (including MassDEP). Announcements for Grant Opportunities and Notification of selection (and non-selection) for Grant Awards must also be posted on COMMBUYS pursuant to 815 CMR 2.00 (Grants and Subsidies).

**Federal Subgrant:** A Grant of Federal Funds received by a State Department as a Federal Grantee, which are provided under contractual terms to a Grantee. Certain Grantees receiving Federal Grant Award funds will be considered Subrecipients and will be required to comply with additional federal requirements. See 815 CMR 2.02 (definitions). In this document, Federal Subgrant is also referred to as “Grant Contract.”

**Grant Review Team (GRT):** The Massachusetts state and federal personnel who are responsible for conducting the evaluation of the applications and recommending to EPA one or more responding entities for award of a grant.

**Grant:** Discretionary and non-discretionary (earmarked) funds of State or Federal Grant Awards which are considered financial assistance provided under contractual terms between a Grantor State Department and a Grantee to assist the Grantee in the achievement or continuation of a specified public purpose to benefit the general public or a segment of the general public consistent with the Grantor Department's Legislative Authorization and the terms of the Grant funding. A Grant of a Federal Grant Award is also known as a Federal Subgrant. See 815 CMR 2.02 (definitions)

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**Grant Announcement:** also called a Request for Responses (RFR), the document describing the grant opportunity, terms, and response requirements.

**Grantee:** A Public or Non-Public Entity selected as a recipient of Grant. See 815 CMR 2.02 (definitions); see also Subrecipient definition below.

**Impairment:** for purposes of the Section 604(b) program, a waterbody that is listed in Category 4a (TMDL), Category 4c, or Category 5 of the Massachusetts Year 2016 Integrated List of Waters (CWA Sections 303d and 305b) is considered to be impaired. The listed nonpoint source pollutants are prioritized to be addressed by Section 319 funds.

**Massachusetts Department of Environmental Protection (MassDEP):** MassDEP is an Executive Department under the Executive Office of Energy and Environmental Affairs (EEA). Within EEA, MassDEP administers the Section 604(b) Water Quality Management Planning Grant Program.

**Subrecipient:** A Grantee that receives a Federal Subgrant from a Grantor (also known as a “pass-through entity”) to carry out part of a Federal Grant Award. Grantees receiving Federal Grant Awards who are deemed “Subrecipients” for Federal Grant Award purposes will be required to comply with applicable federal requirements, including but not limited to Subrecipient audit requirements under the Code of Federal Regulations, including 2 CFR Chapter I, Chapter II, Part 200 et al.

**8. List of Attachments:**

Attachment A: Application

Attachment B: EEO/AA Forms and Guidance

Attachment C: Supplemental Terms and Conditions

Attachment D: Additional Resources & FAQs

Attachment E: 2021 Priority Segments

Attachment F: Lakes with history of Harmful Algal Blooms

Attachment G: Healthy Waterbody Prioritization and Eligible Projects

**A. ATTACHMENT A – Section 604(b) GRANT APPLICATION FFY2021**

**ADMINISTRATIVE SUMMARY**

**APPLICANT:**

**Address:**

**Telephone:**

**Email:**

**PROJECT TITLE:**

**PRIORITY PROJECT TYPE(S):**

**PRIORITY WATERBODY(IES)** (See attachments E, F & G):

**MUNICIPALITIES AND WATERSHED SERVED BY THIS PROJECT:**

(Attach required participation letters)

**AMOUNT OF FUNDING REQUESTED AND LOCAL MATCH (IF ANY) PROPOSED:**

Federal 604b Funds via MassDEP	\$ _____	
Cost Share Proposed	\$ _____	(not required)
Total Project Budget	\$ _____	

**PROJECT SUMMARY/OBJECTIVES:**

**PRINCIPAL CONTACT:**

_____	( ) _____
Name and Title	Telephone

\_\_\_\_\_  
Email

**AUTHORIZED SIGNATORY:**

\_\_\_\_\_  
Name and Title (Printed)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Email

( ) \_\_\_\_\_  
Telephone

## **ATTACHMENT A – SECTION 604(b) GRANT APPLICATION FFY2021**

The application must contain clear and concise narrative responses (and supporting graphics, maps, or tables as necessary) to each of the following sections.

**1. CONCISE STATEMENT OF THE PROBLEM:** Provide background, describe the issue, furnish a statement of need for the selected communities and or watershed, and provide overall project justification. Additionally, provide concise descriptions, information, and/or discussion that answer the following questions:

- What are the issues that this project intends to address?
- What are the specific water quality impairment(s), from the Section 303(d) listing from the 2016 Integrated List of Waters, for the project area? Give a brief history/background leading up to the current situation.
- Who are the "stakeholders" involved in this issue?
- What will the stakeholders gain from the project?
- Why is this project needed in this watershed, or in these particular communities in this watershed?
- Provide a brief summary of any other water quality data that was previously collected for the project area, as applicable. Applicants are encouraged to identify any relevant water quality data collected by MassDEP Watershed Planning Program either through review of technical memorandum (<https://www.mass.gov/guides/water-quality-technical-memoranda>) or water quality data located here: <https://www.mass.gov/guides/water-quality-monitoring-program-data>. Please include brief summaries only and refer to supporting materials for more in-depth analysis.

**2. PROJECT GOALS AND APPROACH:** Provide a description of the project and the strategy to be implemented in response to the identified problem. Refer to a locus map of the project area and a detailed map of the project site in supporting materials. Describe how the proposed project will address the identified nonpoint source pollution problem, clearly linking to the issue(s) described in the above section. Goals should be specific and measurable over short and long term time frames, including how appropriate interest groups in the watershed will be made aware of the project and how results of the project will be disseminated to these groups. When describing the approach to the problem, be as specific as possible. Clearly describe the specific steps to be taken (i.e., scope of work), and the deliverables to be completed. When appropriate, be quantitative in your description (tell where, how many, how frequently, etc.). Present the approach in a logical, step-by-step fashion. Identify who will be involved in each step (if the project has multiple participants), and how the tasks will be coordinated. Describe how the major tasks will be accomplished, and provide specific details. Identify any special skills or techniques that will be used to accomplish certain tasks; for example, GIS capabilities, trained wetlands biologists, water quality sampling experience, computer modeling skills, etc.

## **SCOPE OF SERVICES**

Please note that the following tasks must be included in your proposal if your project includes the specific assessment activities stated below.

### **FOR PROPOSALS THAT INCLUDE COLLECTION, EVALUATION OR USE OF WATER QUALITY DATA:**

1. A quality assurance project plan (QAPP) must be approved by EPA and the Department before any sampling is initiated and must be included in the scope of services as a discrete project task. QAPPs are also required for projects that carry out non-water quality monitoring tasks. In addition, QAPPs are required if a project includes the collection, evaluation, or use of environmental data; the use of environmental models; or the design, construction or operation of environmental technology.
2. A preliminary sampling plan must be provided in proposals that include water sampling as a task. At a minimum, the preliminary plan must describe the general sampling approach. If possible, applicants should provide specific details about how many samples and where, how frequently sampling will occur, what kind of sampling event will be targeted (i.e., stormwater, groundwater, sediments, biological assessment, dry weather, etc.), what type of analyses will be performed (i.e., bacteria, flow, PCBs, heavy metals, macroinvertebrates, etc.). If possible, applicants should state how the results will be analyzed and presented. **When sampling relatively low phosphorus concentration waters, applicants are advised to check with the labs performing the analysis to confirm their ability to accurately analyze low phosphorus levels. The lab analytical methods should be documented in the QAPP.**
3. After grant award, all surface water quality or quantity data or other assessment data collected under this contract shall be submitted to the Watershed Planning Program following the external data submittal requirements provided at: <https://www.mass.gov/guides/external-data-submittals-to-the-watershed-planning-program>.

The data submittal must include: a cover letter, data files containing the data elements described in the data submittal template, a statement of data integrity, and an electronic copy of the approved QAPP/SOP for the data being submitted. Electronic data files and related information can be sent via email to the DWM-WPP at: [WQData.Submit@mass.gov](mailto:WQData.Submit@mass.gov). For regular mail delivery (e.g., CD), data can be sent to the following address:

External Data Coordinator  
Massachusetts Department Of Environmental Protection  
Division Of Watershed Management-Watershed Planning Program  
8 New Bond St., Worcester, MA 01606

### **FOR PROPOSALS THAT INCLUDE GEOGRAPHIC INFORMATION SYSTEMS (GIS) WORK AS A TASK:**

Projects that propose to use GIS to perform land-use assessments, or identify and map sources of pollution within a watershed or subwatershed, must provide information on the type of database(s) that will be used, describe any ground-truthing of information, and state the scale of maps to be produced. Additionally, at the end of the project, all GIS data must be provided to MassDEP, and to other end users as appropriate, on disk in either an ESRI file geo-database or shapefile.

## **ATTACHMENT A – SECTION 604(b) GRANT APPLICATION FFY2021**

### **ALL PROPOSALS – REPORTING REQUIREMENTS**

After grant award, all projects will require quarterly progress reports, a draft final report and a final report. This task is the primary end product of all water quality assessment and management projects funded under this grant program. The Division of Watershed Management and other state, federal and local agencies, as well as public and private stakeholder groups, will use these reports as publicly available information. Because of the importance of the reporting requirements, MassDEP expects that the final reports produced under these grants will be comprehensive, professionally written and produced, and contain useful recommendations based on sound technical assessment/planning information gathered during the project. Three printed copies and two electronic (CD-ROM or flash drive) copies of the final report will be required at the conclusion of all projects.

**SCOPE OF SERVICES: TASKS/DELIVERABLES SUMMARY**

Please provide a brief descriptive statement for each objective and the task/activity, followed by the deliverable product(s) to be submitted. Tasks are to be content-specific which result in discrete deliverable products:

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**OBJECTIVE / TASK #1:**

SUMMARY:

PERSONNEL:

DESIRED OUTCOME(S):   A)  
                                      B)  
                                      C)

COST:

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**OBJECTIVE / TASK #2:**

SUMMARY:

PERSONNEL:

DESIRED OUTCOME(S):   A)  
                                      B)  
                                      C)

COST:

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**OBJECTIVE / TASK #3:**

SUMMARY:

PERSONNEL:

DESIRED OUTCOME(S):   A)  
                                      B)  
                                      C)

COST:

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**OBJECTIVE / TASK #\_\_ : Reporting**

SUMMARY:

PERSONNEL:

DESIRED OUTCOME(S):   A) Quarterly Reports  
                                      B) Draft Report due two months prior to project completion  
                                      C) Final Report

COST:

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(Repeat as necessary.)

**ATTACHMENT A – SECTION 604(b) GRANT APPLICATION FFY2021**

**PROJECT BUDGET**

(This budget is for proposal evaluation purposes. Use whole dollar method.)

<b>Expense Items</b>	<b>604 (b) Amount</b>	<b>Cost Share (not required)</b>	<b>Total Amount</b>
Applicant's Salary - By Title and salary range			
Subcontractual Services (if applicable)			
Equipment			
Supplies (including printing, mailing)			
Travel (for mileage only @ 0.45 cents/mile)			
Other			
Total Amounts:	\$	\$	\$

OVERHEAD RATE (%) \_\_\_\_\_ %

TOTAL REQUEST FOR GRANT: \$ \_\_\_\_\_ 604(b) Funds

TOTAL COST SHARE: \$ \_\_\_\_\_ (Not Required)

TOTAL BUDGET AMOUNT: \$ \_\_\_\_\_

**All Applicants must clearly indicate in their proposal budgets the specific tasks with dollars amounts that will be used to meet or exceed the DBE "Fair Share" requirements.**



**ATTACHMENT A – SECTION 604(b) GRANT APPLICATION FFY2021**

**PROJECT MILESTONE SCHEDULE**

Provide a time-line by “X-ing” out the duration of the task activity. Use additional pages as necessary. Presume a January 1, 2021 Notice to Proceed.

TASK	MONTH																							
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Task #1																								
Task #2																								
Task #3																								
Task #4																								
Task #5																								
Task #6																								
Repeat as necessary																								

## **ATTACHMENT A – SECTION 604(b) GRANT APPLICATION FFY2021**

### **Supporting Materials:**

Include the following supporting materials with the application. Any application that does not contain the following required material will not be considered for funding.

#### **Required:**

- A. locus map of the project area, and a detailed map of the project area
- B. If a cash or in-kind match will be provided by an entity outside the applicant's organization, a letter from the authorized agent of the match provider must be submitted by the Grant Application due date, stating a commitment to provide the match.
- C. Letters of support from all organizations identified in the project proposal as participating in the project or providing a portion of the match for the project. These letters must: be written on the organization's letterhead, be signed by the organization's authorized signatory, and detail the services or match to be provided by the organization. Letters of support from participating entities should be included with the proposal submission and must be received by the application deadline (April 14, 2021, at 5 p.m.).
- D. An executed Equal Opportunity/Affirmation Action Policy Statement (sample provided in this RFR)
- E. Written Statement of Intent acknowledging the obligation to meet or exceed fair share goals (sample provided in this RFR)

#### ***Recommended:***

- A. Resumes for key project staff
- B. A statement of support from appropriate local authority(ies) and stakeholder group(s), e.g., Conservation Commission, DPW, watershed organizations, etc.
- C. Maps, resource/classification information, and a summary of water quality data pertinent to the project.

**B. ATTACHMENT B– EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE  
ACTION GUIDANCE AND FORMS**

UTILIZATION OF DBEs UNDER THE FEDERAL GRANT .....	B-2
GUIDANCE FOR EEO/AA POLICY STATEMENT.....	B-4
SAMPLE EEO/AA POLICY STATEMENT.....	B-6
SAMPLE STATEMENT OF INTENT .....	B-8
REQUEST FOR WAIVER FORM .....	B-9

## **AFFIRMATIVE ACTION AND DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS**

### **AFFIRMATIVE ACTION REQUIREMENTS FOR PROPOSALS:**

For all proposals, an **Equal Employment Opportunity/Affirmative Action Policy Statement** must be submitted with the proposal.

### **UTILIZATION OF DBEs UNDER THE FEDERAL GRANT**

In May 2008 a new United States Environmental Protection Agency (EPA) rule became effective that changed the Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) Program to a Disadvantaged Business Enterprise (DBE) Program.

For firms to qualify under the previous MBE/WBE program, they needed to be socially disadvantaged and had to be certified by the Supplier Diversity Office (SDO). Under the new DBE rule, the firms must be both **socially** and **economically** disadvantaged, citizens of the United States, and certified as a DBE either by the state or the federal government. Women and certain minorities are presumed to be socially disadvantaged. The economic disadvantage is measured by the owner's initial and continuing personal net worth of less than \$1,320,000.

Because the Clean Water Act requires the use of MBEs and WBEs, these firms can still be utilized to meet utilization goals, but they must also be certified as DBEs. The new regulations mean that only a subset of the universe of MBEs and WBEs can be used; those who are also certified as DBEs.

MassDEP has undertaken an availability analysis to develop new DBE goals. These new goals are **4.2% D/MBE** and **4.5% D/WBE** respectively for any subcontract for services, construction, goods or equipment.

SDO will continue to be the certifying agency for D/MBEs and D/WBEs.

The grantee according to 40 CFR, Part 33 Subpart C will make the following good faith efforts whenever procuring construction, equipment, services and supplies.

(2) The six Good Faith Efforts shall include:

(i) Require the DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. This will include placing qualified disadvantaged minority business and women's business enterprises on solicitation lists and soliciting them whenever they are potential sources;

(ii) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids for a minimum of 30 calendar days before the bid or proposal closing date;

(iii) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. This will include dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs;

(iv) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually;

(v) Use the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce; and

(vi) If the prime subcontractor awards subcontracts, require the prime contractor to take the steps listed in paragraphs (i) through (v) of this section.

## **GUIDANCE FOR EEO/AA POLICY STATEMENT**

The policy statement outlines your company's/agency's commitment to equal employment opportunity and affirmative action as a company/agency objective of equal importance to other company/agency objectives.

### **The Policy Statement should include:**

- A. Non-Discrimination in employment and service delivery as an organizational priority and practice.
- B. Access to employment and service delivery by all otherwise eligible persons regardless of their race, creed, color, sex, national origin, political affiliation, age, or disability.
- C. Goal of having staff at all levels of the organization reflect the proportion of minority, female and disabled persons represented in the service delivery area.
- D. Identification of an individual in the organization who is entrusted with enforcing the non-discrimination policy.
- E. Signature and title of the organization's Chief Executive Officer.

You may use the attached sample statement as a model. It must be completed and submitted to MassDEP on your agency letterhead. The Chief Executive Officer of your company/agency must sign the Statement, expressing the management endorsement of the policy and assigning responsibility for making that endorsement. The Policy Statement is the basis for the rest of the Affirmative Action Plan, which describes how you will put your commitment to Affirmative Action in practice. The Policy Statement can function as the introduction to your Affirmative Action Plan.

The key individual for developing and implementing the Affirmative Action Program is your company's Affirmative Action Officer. When assigning/appointing the individual designated on the Policy Statement it should be kept in mind that for the Affirmative Action Officer to be effective, he/she should:

- Participate in the planning, development and implementation of policies involving the budget, personnel, recruitment, contract compliance, training, performance appraisals and program and policy development. The Affirmative Action Officer should work in conjunction with the appropriate staff assigned to the aforementioned responsibilities.
- Be actively involved with minority and women's organizations, training programs and other organizations relating to people identified as members of protected groups.
- Conduct periodic audits of training programs and hiring and promotion patterns to remove barriers to goals and objectives, as well as audits of other plans.
- Review company/agency policies to assure equal opportunity for protected groups and prevent possible adverse impact on these groups.
- Hold regular discussions with managers and supervisors to advise them of their responsibilities and accountabilities, and review progress toward divisional affirmative action goals and implementation of agency affirmative action policies.
- Monitor and review the qualifications of all employees to ensure that minorities, women and other protected group members are given full opportunities for training and promotion.
- Be familiar with, and understand the various State and Federal regulations that impact employment practices (i.e., Title VII, Section 504, Chapter 533, Age Discrimination Act).

- Meet regularly with the hiring sources to review progress toward agency affirmative action goals.

***(SAMPLE: Place on Letterhead of Organization)***

**SAMPLE EEO/AA POLICY STATEMENT**

\_\_\_\_\_  
(Name of Organization) has a statutory mandate under law to guarantee equal treatment for all who seek access to its services or opportunities for employment and advancement. No discrimination will be tolerated on the basis of race, creed, political affiliation, color, sex, national origin, age, or handicap. The ultimate goal is for personnel of this organization to reflect the proportions of minority, female, and handicapped persons in the populations they serve.

\_\_\_\_\_  
(Name of Organization) will meet its legal, moral, social, and economic responsibilities for Equal Employment Opportunity/Affirmative Action as authorized and required by all pertinent state and federal legislation, executive orders and rules and regulations, including the following:

1. Title II of the Civil Rights Act of 1964 (42 USC s2000e et. seq., which prohibits discrimination in employment on the basis of race, color, religion, sex, or national origin; and
2. The Age Discrimination in Employment Act of 1967 (29 USC s621 et. seq.), which prohibits discrimination in employment on the basis of age with regard to those individuals who are at least 40 years of age, but less than 65 years of age; and
3. Section 504 of the Rehabilitation Act of 1973 (29 USC s794), and the regulations promulgated pursuant thereto (45 CFR Part 84), which prohibit discrimination against qualified handicapped individuals on the basis of handicap and requires employers to make reasonable accommodations to known physical or mental limitations of otherwise qualified handicapped applications and employees; and
4. M.G.L. c. 151B s4 (1), as amended by Chapter 533, 1983, which prohibits discrimination in employment on the basis of race, color, sex, religious creed, national origin, ancestry, age or handicap,

In addition, the Provider agrees to be familiar with and abide by:

- \* Massachusetts Executive Order 524
- \* Massachusetts Executive Order 526
- \* Equal Pay Act of 1963
- \* Massachusetts Architectural Barriers Board Act
- \* Federal Executive Orders 11246 and 11375 as amended.

All employees, unions, sub contractors and vendors must make genuine and consistent efforts:

1. To ensure equal employment opportunities for present and future employees, and
2. To implement affirmative action, as legally required, to remedy the effects of past employment discrimination and social inequalities.

The responsibility for implementing and monitoring this policy has been delegated to:

\_\_\_\_\_  
Name and Title of Employee

Furthermore, \_\_\_\_\_  
(Name of Organization) prohibits that any employee, or applicant, be subjected to coercion, intimidation, interference or discrimination for filing a complaint or assisting in an investigation under this program. No portion of this Equal Employment Opportunity/Affirmative Action



Policy shall be construed as conflicting with any existing or future judicial or legislative mandate where a constriction consistent with that mandate is reasonable.

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Signature of Chief Executive

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Title of Chief Executive

---

Date

## **SAMPLE STATEMENT OF INTENT**

(Place on Letterhead of Organization)

### **Statement of Intent**

The Section 604b Water Quality Management Planning Grant Program asks for a good faith effort that minimum Fair Share Disadvantaged Minority and Women Business Enterprise goals will be met or exceeded for this project. The \_\_\_\_ (name of your organization)\_\_\_\_ plans to contract with DMBE/DWBE vendors for \_\_\_\_ (specify type of business, service or product)\_\_\_\_ during this project.

The Fair Share utilization goals for this project are 4.2% DMBE and 4.5% DWBE on the total project dollars. To comply with the DMBE/DWBE participation goals, it is anticipated that \$\_\_\_\_for DMBE and \$\_\_\_\_DWBE will be adhered to.

## Request for Waiver Form

### REQUEST FOR WAIVER

Upon exhausting all known sources and making every possible effort to meet the minimum requirements for DBE participation, the Contractor may seek relief from these requirements by filing this form with the request and submitting a completed waiver package. Failure to comply with this process shall be cause to reject the bid thereby rendering the Contractor not eligible for award of the subcontract.

#### General Information

Project Number: \_\_\_\_\_ Project Location: \_\_\_\_\_

Project Title: \_\_\_\_\_

Awarding  
Authority/Contractor: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Telephone No. (    ) \_\_\_\_\_ Ext. \_\_\_\_\_

#### Minimum Requirements

The Contractor must show that good faith efforts were undertaken to comply with the percentage goals as specified. The Contractor seeking relief must show that such efforts were taken appropriately in advance of the time set for opening bid proposals to allow adequate time for response(s) by submitting the following:

- A. A detailed record of the effort made to contact and negotiate with disadvantaged minority and/or woman owned businesses, including:
1. names, addresses, telephone numbers and contact dates of all such companies contacted;
  2. copies of written notice(s) which were sent to DBE potential subcontractors prior to bid opening;
  3. a detailed statement as to why each subcontractor contacted (i) was not willing to do the job or (ii) was not qualified to perform the work as solicited; and
  4. in the case(s) where a negotiated price could not be reached the bidder should detail what efforts were made to reach an agreement on a competitive price.
  5. copies of advertisements, dated not less than ten (10) days prior to bid opening, as appearing in general publications, trade-oriented publications, and applicable minority/women-focused media detailing the opportunities for participation;

- B. MassDEP may require the Contractor to produce such additional information as it deems appropriate.
- C. No later than ten (10) days after submission of all required information and documentation, MassDEP shall make a determination, in writing, whether the waiver request is granted and shall provide that determination to the Contractor and Awarding Authority. If the waiver request is denied, the facts upon which a denial is based will be set forth in writing.

Special Note

If at any time, MassDEP determines that one or more of the DBE contractors as submitted by the Contractor is not certified, the Contractor shall have 10 working days, following notification to MassDEP, to either find a certified DBE contractor to perform work equal to or greater than that of the uncertified contractor or submit a waiver request.

CERTIFICATION

The undersigned herewith certifies that the above information and appropriate attachments are true and accurate to the best of my knowledge and that I have been authorized to act on behalf of the bidder in this matter.

---

(authorized original signature)

---

DATE

MAILING INSTRUCTIONS: (CERTIFIED MAIL)

TO: DEP-BWR 604(b) PROGRAM MANAGER  
PATRICIA ARP  
MassDEP  
8 NEW BOND STREET  
WORCESTER, MA 01606

CC: DEP-DFM PROCUREMENT ANALYST  
YITLING SLAYMAN  
MassDEP  
ONE WINTER STREET - 4TH FLOOR  
BOSTON, MA 02108

## C. ATTACHMENT C – SUPPLEMENTAL TERMS AND CONDITIONS

In addition to the Commonwealth Terms and Conditions cited in Section 6A of the RFR, the following supplemental terms and conditions apply to the grant contracts issued as a result of this RFR:

**1. Electronic Communication/Update of Grantees' Contact Information:** It is the responsibility of the Grantee to keep current the email address of the Grantee's contact person and prospective contract manager, and to monitor that email inbox for communications from MassDEP, including requests for clarification. MassDEP and the Commonwealth assume no responsibility if a Grantee's designated email address is not current, or if technical problems, including those with the Grantee's computer, network or internet service provider (ISP) cause email communications sent to/from the Grantee and MassDEP to be lost or rejected by any means including email or spam filtering.

**2. Contract Expansion:** If additional funds become available during the grant contract duration period, the Department reserves the right to increase the maximum obligation to some or all contracts executed as a result of this Grant Announcement or to execute contracts with Grantees not funded in the initial selection process, subject to available funding, satisfactory contract performance and service or commodity need.

**3. Compensation and Payment of Grant Funds:** Costs which are not specifically identified in the Applicant's response, and/or accepted by MassDEP as part of a grant contract, will not be compensated under any contract awarded pursuant to this Grant Announcement. The Commonwealth will not be responsible for any costs or expenses incurred by Applicants responding to this Grant Announcement.

Upon award of a contract, the following terms and conditions apply to compensation and payment to the Grantee.

**a. Payment for Services Delivered:** Contracts will be paid on a reimbursement of costs basis and under maximum obligation contract basis. The payment procedure for awards is reimbursement for costs incurred for the project during the contract period. Only project costs incurred during the contract period will be eligible for payment.

**b. Payment only for MassDEP Accepted Services:** Compensation will be made for services delivered and accepted by MassDEP's Section 604(b) Program Manager and Contract Manager provided the project budget is not exceeded, and the scope of the services falls within the scope defined in the approved work plan or subsequent MassDEP approved scope changes, such as a change order document.

**c. Cost Tables:** Compensation will be based solely on the budget/cost tables supplied by the applicant and accepted by MassDEP. Cost tables must contain all goods and services to be provided on this Contract.

- Travel is reimbursed for vehicle miles only at \$0.45 per mile.
- No meals, snacks, beverages, or other comestibles may be purchased using grant funds.
- Grantees must be equipped to carry out the proposed work. Section 604(b) funds cannot be used to purchase computers, software, capital equipment, and/or similar expenditures.

**d. Payment Restrictions:** The following are restrictions that may result in non-payment to the Grantee:

- Costs which are not specifically identified in the Grantee's application (e.g. Work and Cost Plan) and/or accepted by MassDEP as part of a contract, will not be compensated under any grant contract awarded pursuant to this Grant;
- Costs incurred prior to the official contract start date or after the end date of the grant contract will be ineligible for payment;
- Grantees are at risk for non-payment of claims that exceed the MassDEP approved budget for the project, and cost elements within the project that are tracked as part of the financial management and reporting requirements as determined on a project specific basis;
- The Commonwealth will not be responsible for any costs or expenses incurred by the Applicant responding to this Grant Announcement; and
- Invoices for costs incurred in prior fiscal years cannot be paid.

See also Section 4C (Funding Availability, Budgeting Guidelines & Allowable Expenditures) of this Grant Announcement for additional budget and payment restrictions.

**e. Payment through the Commonwealth's Electronic Funds Transfer (EFT):** All Grantees must comply with the Commonwealth Electronic Funds Transfer (EFT) program for receiving payments, unless the Grantee can provide compelling proof that it would be unduly burdensome. The requirement for EFT participation is stipulated in the general Commonwealth of Massachusetts – Standard Contract Form. The link to the EFT Form is: <https://www.mass.gov/doc/electronic-funds-transfer-form-2/download>.

If the Grantee is already enrolled in the program, it may so indicate in its response. Because the Authorization for EFT Form contains banking information, this form, and all information contained on this form, shall not be considered a public record and shall not be subject to public disclosure through a public records request.

The requirement to use EFT may be waived by MassDEP on a case-by-case basis if participation in the program would be unduly burdensome on the Grantee. If a Grantee is claiming that this requirement is a hardship or unduly burdensome, the specific reason must be documented in its response. MassDEP will consider such requests on a case-by-case basis and communicate the findings with the Grantee.

**f. Invoices Submitted for Reimbursement of Costs:** Invoices that are submitted to MassDEP for reimbursement must have sufficient detail to document the validity of the costs being claimed. At a minimum, the invoice must parallel the task breakdown structure and cost elements contained therein so the invoice can be directly compared to the approved budgets for the various cost elements. The level of detail and breakdown of the cost elements in the budget and the invoices will be determined on a project specific basis.

*Invoice Supporting Documentation:* MassDEP requires supporting documentation for certain costs that have been billed to the Grantee and are included in the claim for compensation in the invoice. Supporting documentation includes items such as copies of bills and invoices from subcontractors, laboratories, travel expenses when lodging or vehicle rental is required, police detail bills, permit fees, purchases of equipment, materials and supplies that exceed certain cost thresholds, etc. In some cases, where construction services from a subcontractor are included, MassDEP may require daily and/or weekly labor and equipment use logs from the construction contractors. The required supporting

documentation will be determined on a project specific basis by MassDEP; however, the Grantee may assume that the items cited in this clause will be required.

**g. 45-Day Standard Payment Schedule:** Reimbursement is generally made 45 days subsequent to the Grantee submitting an invoice that is accurate and compliant with the contract specific requirements for backup supporting documentation. Invoices that are not compliant with these requirements will be rejected and returned to the Grantee for correction, and the 45-day payment period will no longer apply.

**h. Exemption from Massachusetts Sales Tax:** No payments shall be made for Massachusetts sales tax as defined in M.G.L Chapter 64H, sec. 6, as applicable to the Grantee. Grantees are required to obtain and complete valid Sales Tax exemption forms for use on the project. For example, Forms ST-2 or ST-5 may be applicable depending on the nature of the Grantee.

**i. Fair and Reasonable Pricing:** The Applicant must agree that prices included in any and all cost proposals, cost estimates, and bills and invoices for services to be compensated by contract funds are fair and reasonable, and are of fair market value where applicable, including but not limited to prices for labor, equipment rental and leases, equipment purchases, materials and supplies, vehicle usage, and all other costs to be compensated by the funds from the contract. If the Commonwealth believes that it is not receiving fair and reasonable prices from the Grantee, and the Grantee cannot justify the prices to the MassDEP, then MassDEP reserves the right to suspend work and compensation until a satisfactory price is established.

**4. MassDEP Authorized Approval Authorities:** For this contract, the following are the titles, persons, and their approval authorities to direct and approve the Grantees' technical and financial implementation of the projects throughout the period of performance of the contract:

**Section 604(b) Program Manager:** Has the authority to approve the technical and administrative aspects of the project, including initial approval and approval of changes to technical and administrative items that do not involve impacts to project costs or impact terms and conditions of the contract. Co-authority, with the Contract manager, to approve budgets, changes to budgets, acceptance or rejection of invoices, approval or disapproval for payment of invoices or partial payments, negotiations regarding payments, and terms and conditions of the contract that are open to negotiation, usually on a project specific basis.

Between the period of November 30, 2020 and April 30, 2021, the Interim Section 604(b) Program Manager is: Patricia Arp, MassDEP, BWR-DWM, Worcester Office. Beginning on May 3, 2021, it is anticipated that the Section 604(b) Program Manager will be: Meghan Selby, MassDEP, BWR-DWM, Worcester Office.

**BWR Section 604(b) Contract Manager:** Co-approval authority, with the Section 604(b) Program Manager, to approve the budgets, cost estimating and invoicing format on a project specific basis, acceptance or rejection of invoices, payment approval or disapproval of invoices or partial payment of invoices, negotiations regarding payments, and terms and conditions of the contract that are open to negotiation, usually on a project specific basis.

The current BWR Section 604(b) Contract manager is: Aiesha Cummings, MassDEP, BWR, Boston Office.

Co-approval is defined, for this contract, to mean the Grantee must receive written approval from both the Section 604(b) Program Manager and Contract manager before the Grantee can implement the work, and incur costs eligible for compensation. Written approval, as defined for this contract, is any written documentation clearly approving the project item, including e-mails as well as letters. Failure of the Grantee to receive written approval may result in non-payment of an invoice claiming costs for the unapproved work, or resulting in a budget exceedance.

In the absence of either the Section 604(b) Program Manager or Section 604(b) Contract manager, approval and signature “for” authority may be delegated to other MassDEP staff, as appropriate.

**5. Environmental Response Submission Compliance:** In an effort to promote greater use of recycled and environmentally preferable products and minimize waste, all paper responses submitted should comply with the following guidelines:

- All paper copies should be printed double sided unless specifically requested otherwise by MassDEP;
- All paper submittals and copies should be printed on recycled paper with a minimum post-consumer content of 30% or on tree-free paper (i.e. paper made from raw materials other than trees, such as kenaf);
- Unless absolutely necessary, all responses and copies should minimize or eliminate use of non-recyclable or non-re-usable materials such as plastic report covers, plastic dividers, vinyl sleeves and GBC binding. Three ringed binders, glued materials, paper clips and staples are acceptable;
- Applicants should submit materials in a format, which allows for easy removal and recycling of paper materials;
- Applicants are encouraged to use other products, which contain recycled content in their response documents. Such products may include, but are not limited to, folders, binders, paper clips, diskettes, envelopes, boxes, etc.; and
- Unnecessary samples, attachments or documents not specifically asked for should not be submitted.

**6. Public Records:** All responses and information submitted in response to this Grant Announcement are subject to the Massachusetts Public Records Law, M.G.L., c. 66, s. 10, and to c. 4, s. 7, ss. 26. Any statements in submitted responses that are inconsistent with these statutes shall be disregarded.

**7. Restriction on the Use of the Commonwealth Seal:** Applicants and Grantees are not allowed to display the Commonwealth of Massachusetts Seal in their bid package or subsequent marketing materials if they are awarded a contract because use of the coat of arms and the Great Seal of the Commonwealth for advertising or commercial purposes are prohibited by law.

**8. Subcontracting Policies:** Concurrence of the Department is required for any subcontracted service of the contract. Grantees are responsible for the satisfactory performance and adequate oversight of its subcontractors. See also, Article 9 of the Commonwealth Terms and Conditions.



**9. Confidential Information:** The Grantee acknowledges that, in the performance of this Contract, it may acquire information that the Department deems confidential and not a public record as defined by M.G.L. chapter 4, subsection 7, including but not limited to policies, procedures, guidelines, and case information and that the unauthorized disclosure of such information would cause the Department, in the execution of its functions, irreparable damage. The Grantee shall comply with all laws and regulations relating to confidentiality and privacy, including any rules, regulations, or directions of the Department. See also, Standard Contract Form's Contractor Instructions, pages 4-5, regarding the Protection of Commonwealth Data, Personal Data, And Information.

**10. Security of Confidential Information:** The Grantee agrees to take reasonable steps to ensure the physical security of such data under its control, including but not limited to: fire protection; protection against smoke and water damages; alarm systems; locked files, guards or other devices reasonably expected to prevent loss or unauthorized removal of manually held data; passwords, access logs, badges or other methods reasonably expected to prevent loss or unauthorized access to electronically or mechanically held data; limited terminal access, access to input documents and output documents, and design provisions to limit use of personal data.

**Flow-down the Confidentiality Provision to Subcontractors:** The Grantee shall include language in agreements with each of its Subcontractors, which binds the Subcontractors to compliance with the confidentiality provisions of this Contract.

**11. Fraud, Waste, and Abuse, and False Statements:** Applicants and Grantees that commit fraud, waste, and/or abuse or supply MassDEP or its representatives with false statements shall result in the applicant being disqualified from Grant eligibility, and Grantees being suspended or terminated from the project. Misstatements meant to mislead MassDEP or its representatives, and/or other elements of fraud, waste or abuse of funds may also result in debarment of the Grantee from future Departmental projects, and potential legal action depending on the nature of the violation of this section.

**12. Performance, Progress Reporting, and Funding Reference for Printed and Internet Posted Materials:** The Grantees will be required to demonstrate satisfactory performance under this contract through periodic review by the MassDEP Section 604(b) Program. Projects will have progress reports, with the timing and number to be determined by the MassDEP Section 604(b) Program on a case-by-case basis, and a final project completion report. Reporting requirements will include a narrative of the project progress and accomplishments, photographs, monitoring data and analysis, and additional site- and project- specific information, as necessary and appropriate. All projects will have a final project completion report. All projects and descriptions, in print and on the Internet, must contain the following statement: "This project has been financed partially with Federal Funds from the Environmental Protection Agency (EPA) to the Massachusetts Department of Environmental Protection (the Department) under Section 604(b) of the Clean Water Act. The contents do not necessarily reflect the views and policies of EPA or of the Department, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use."

## D. ATTACHMENT D – ADDITIONAL RESOURCES & FAQs

- 1) **Massachusetts 2016 Integrated List of Waters Draft and Final TMDL analyses:**  
<http://www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls.html#2>.
- 2) **GIS coverage MassDEP 2016 Integrated List of Waters:**  
<https://docs.digital.mass.gov/dataset/massgis-data-massdep-2016-integrated-list-waters>
- 3) **Watershed-based Planning Tool** - The WBP will guide a user to select a watershed and complete the nine elements necessary to comprise a watershed-based plan:  
<http://prj.geosyntec.com/MassDEPWBP>
- 4) **Water Quality Assessment Reports:**  
<http://www.mass.gov/eea/agencies/massdep/water/watersheds/water-quality-assessments.html>
- 5) **The Clean Water Toolkit**, Massachusetts Nonpoint Source Pollution Management Manual - A manual in electronic format that provides an overview of nonpoint source related issues, fact sheets and detailed information about best management practices to address nonpoint source problems:  
<http://prj.geosyntec.com/npsmanual/default.aspx>
- 6) **NPDES Stormwater Regulated Communities** – Section 604(b) funds are not eligible for activities that are required under final NPDES permits in the regulated area: <https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities>
- 7) **University of New Hampshire Stormwater Center** - where in situ testing of several Best Management Practices is conducted. Visit this site for fact sheets and information about porous asphalt, gravel wetlands, swirl concentrators, and other relevant information:  
<http://www.unh.edu/unhsc/>
- 8) **Stormwater Policy and General Publications:**  
<http://www.mass.gov/eea/agencies/massdep/water/wastewater/stormwater.html>
- 9) **Cornell Extreme Precipitation Analysis** - website, providing rainfall analysis calibrated to the present climate: <http://precip.eas.cornell.edu/>
- 10) **EPA's Soak Up the Rain campaign** - information and resources to support public outreach and education: <http://www.epa.gov/soakuptherain>

- 11) MassDEP Project Summaries** - One-page descriptions of projects that have received 604(b) funding over the last five years: <https://www.mass.gov/doc/s604b-water-quality-management-planning-project-summaries-ffy1998-2018/download>
- 12) Massachusetts Nonpoint Source Management Program Plan, 2020-2024** - with concise goals and objectives: <https://www.mass.gov/doc/final-2020-2024-massachusetts-nonpoint-source-management-program-plan/download>

## **FREQUENTLY ASKED SECTION 604(b) QUESTIONS AND RESPONSES**

### **1. How often can invoices be submitted for reimbursement?**

MassDEP requires grant recipients to submit invoices and project updates on a quarterly basis. On occasion, MassDEP will allow a more frequent schedule for the submission of invoices and/or project updates, provided that this alternative schedule has been approved in advance.

### **2. If the project proposes a modification to an existing sampling plan and QAPP (e.g. different sampling sites or schedule) should a new SAP be submitted or will the project be covered?**

In these circumstances, it is likely that a modification or amendment to an existing QAPP would be required during the course of the project. After grant award, Suzanne Flint MassDEP's Quality Assurance Officer, can provide grant recipients with more specific feedback regarding particular projects. Her email is: [Suzanne.flint@mass.gov](mailto:Suzanne.flint@mass.gov)

### **3. Is there a technical definition of a "Watershed-Based Plan"?**

Yes; please see the MassDEP website for additional information:  
<https://www.mass.gov/guides/watershed-based-plan-information>

### **4. What have been the cost ranges for developing a Watershed-Based Plan?**

Based upon the costs of prior grant projects, a basic Watershed-Based Plan (WBP) could cost approximately \$10,000. A more detailed WBP, however, with BMP locations prioritized and preliminary designs included, could cost approximately \$50,000 or more, depending on the full scope of the WBP.

### **5. Is developing a Watershed-Based Plan to remove nutrients identified in a TMDL that is in a Phase II MS4 permit eligible for this grant?**

The development of a watershed-based plan in a Phase II permit area is an eligible Section 604(b) project. However, any proposed development of a watershed-based plan in a non-MS4 permit area would be a higher priority under this grant program.

### **6. Can Section 604(b) funding be used to conduct wet weather screenings required by the NPDES stormwater permit?**

Any items that are required by the NPDES stormwater permits are not eligible projects.

**7. If a municipality were awarded a grant under the Southeast New England Program (SNEP) for watershed planning or related activities, would the amount awarded from EPA be able to be used as a match for the Section 604(b) Water Quality Management Planning Grant?**

Grants and awards from other Federal programs, such as the SNEP program, are not eligible as matching funds. However, State funded grants, such as Coastal Pollution Remediation Grants and Municipal Vulnerability Program grants, are may be eligible as matching funds for the Section 604(b) grant program. See section 4.D above for match information.

If a project proposal builds on previous grant funding received from other federal and/or state programs, or the proposal is intended to lay the groundwork for a future project that would qualify for future federal or state grant funding, and is also a priority for multiple grant programs, it would be considered highly competitive.

**8. Would bacteria source tracking be eligible under the Section 604(b) program?**

Yes, a project proposing to conduct bacteria source tracking would be eligible under the Section 604(b) program, if the project is not being conducted as part of or to fulfill any MS4 permit requirements.

**9. Can this funding be used for planning/design of a project used by a town to comply with a DEP watershed permit?**

No, work that is already required under a federal, state, or local permit or enforcement order is not eligible under the Section 604(b) program.

**10. Can Section 604(b) funding be used to conduct wet weather screenings required by MS4?**

No, work that is required under a permit or enforcement order is not eligible under the Section 604(b) program. See also response to Question #14 above.

## E. ATTACHMENT E – 2021 PRIORITY SEGMENTS

The following Massachusetts waterbodies are proposed as nonpoint source (“NPS”) impaired waters that are most likely to respond to remediation efforts that will result in meeting water quality standards (Table 1, Table 2)

Waterbodies listed here are defined by segment or waterbody number. Water quality impairments are found in the Final Massachusetts 2016 Integrated list of Waters (<http://www.mass.gov/dep/water/resources/tmdls.htm> )

This list has been developed using the following approach:

1. The Massachusetts Recovery Potential Screening Tool (RPST, version dated 2/14/2020) was used to identify Sustainable Water Management Initiative (“SWMI”) subwatersheds that are most highly recoverable. The area weighted average of a SWMI watershed Recovery Potential Index (RPI) or the simple average was calculated for waterbodies with a MassDEP segment ID. Watersheds showing medium-high and high recoverability potential (Recovery Potential Index greater than 55.95) were selected. See Table 3 for the RPST tool setup parameters.
2. For each waterbody, it was determined if the cause of impairment was due to nonpoint source causes. (See Table 3 for impairment likely due to NPS cause). Additionally for each waterbody the likely NPS related impairments, nutrients, eutrophication and pathogen, were characterized based on whether they are priority for restoration (See Table 5 for list of priority NPS causes of impairment). Only waterbodies with impairment due to these classes were considered a priority.
3. Coastal SWMI watersheds, watersheds with watershed impervious cover greater than 10%, with a cause of impairment of “source unknown” or with watershed cropland and pasture landuse less than 10%, were all deemed nonpriority waterbodies. Additionally, waterbodies with a source of impairment listed as combined sewer overflows and waterbodies suspected to be impaired largely due to wastewater treatment plant impacts were also excluded from consideration.
4. Finally waterbodies in the two National Water Quality Initiative Watersheds including HUC12 watersheds in the Nashua River Watershed called “Nashua mainstem-Squannacook River to mouth(010700040402)” and in the Westport River Watershed called “Noquochoke Lake (010900020501)” and “Westport River-Noquochoke Lake to mouth (010900020502)”. All stream segments and estuary segments were identified as priority waterbodies regardless of the cause of their impairment as these watersheds are a high priority for MassDEP and its partners.
5. Estimated trophic status for lakes and ponds from the Northeast Lake and Pond Classification (Sheldon and Anderson 2016). Lakes classified with a trophic status with oligotrophic-mesotrophic that are impaired will have a higher recovery potential than those classified as eutrophic. Lakes with harmful algal blooms will also be considered higher priority due the public health aspect of this impairment.
6. The targeted stream/river waterbodies are shown below, with the water quality impairments that can most effectively be addressed through NPS Best Management Practices (“BMPs”)

(Table 1). The targeted lake waterbodies with estimated trophic status and water quality impairments that can most effectively be addressed through NPS BMPs are shown below (Table 2). Targeted estuary waterbodies can also be found in Table 2.

This is a partial list for planning purposes only. Applicants wishing to work in other watersheds are encouraged to follow similar methodology in order to identify competitive, high priority projects. To access the Massachusetts Recovery Potential Screening Tool, see following link:

<https://www.epa.gov/rps/downloadable-rps-tools-comparing-watersheds>.

After grant award, grant recipients may also contact Matthew Reardon, MassDEP, at 508-849-4002 or [matthew.reardon@mass.gov](mailto:matthew.reardon@mass.gov) for further assistance and access to resources.

**Table 1: 2020 Priority Stream/River Waterbodies for Nonpoint Source 604(b) Program**

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in italics)	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Blackstone	MA51-15	Tatnuck Brook	From outlet Holden Reservoir #2, Holden to inlet Coes Reservoir, Worcester (through Cook Pond formerly segment MA51027 and Patch Reservoir formerly segment MA51118).	3.3 miles	B	Benthic Macroinvertebrates Bioassessments, Flow Regime Modification, Non-Native Aquatic Plants, Sedimentation/Siltation, <i>Escherichia Coli (E. Coli)</i>	Unspecified Urban Stormwater, Source Unknown, Introduction of Non-native Organisms (Accidental or Intentional)	60.5
Buzzards Bay	MA95-06	Sippican River	Headwaters, outlet Leonards Pond, Rochester to County Road, Marion/Wareham.	3 miles	B (WWF, HQW)	<i>Chlorophyll-a</i> , Dissolved Oxygen, Enterococcus	Dam or Impoundment, Source Unknown	62.8
Buzzards Bay	MA95-36	Mattapoissett River	Headwaters, outlet Snipatuit Pond, Rochester to Mattapoissett River Dam (#MA02447) at Fairhaven Road (Route 6), Mattapoissett.	10.4 miles	B	Enterococcus, <i>Escherichia Coli (E. Coli)</i>	Source Unknown	63.0
Buzzards Bay	MA95-44	Snell Creek	Headwaters west of Main Street, Westport to Drift Road, Westport.	1.3 miles	B	Mercury in Fish Tissue, PCBs In Fish Tissue		NWQI Waterbody
Buzzards Bay	MA95-12	Shingle Island River	Outlet of small unnamed pond northeast of Flag Swamp Road, Dartmouth to inlet Noquochoke Lake (north basin), Dartmouth.	1.5 miles	B	Enterococcus, <i>Escherichia Coli (E. Coli)</i> , Fecal Coliform		NWQI Waterbody
Buzzards Bay	MA95-58	Bread And Cheese Brook	Headwaters north of Old Bedford Road, Westport to confluence with East Branch Westport River, Westport.	5 miles	B	Enterococcus	Source Unknown	NWQI Waterbody
Buzzards Bay	MA95-57	Unnamed Tributary	Outlet Cornell Pond, Dartmouth to confluence with Shingle Island River, Dartmouth.	4.9 miles	B	Enterococcus, Fecal Coliform		NWQI Waterbody
Buzzards Bay	MA95-84	Unnamed Tributary	Unnamed tributary to Snell Creek, perennial portion north of Brookwood Drive, Westport to mouth at Snell Creek, Westport.	1 miles	B	Not applicable	Not applicable	NWQI Waterbody
Buzzards Bay	MA95-73	Dunhams Brook	Headwaters east of the intersection of Cornell and Main roads, Westport to the confluence with the West Branch Westport River at Hicks Cove, Westport.	0.8 miles	B	Not applicable	Not applicable	NWQI Waterbody



Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in italics)	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Buzzards Bay	MA95-75	Unnamed Tributary	Unnamed tributary to Bread and Cheese Brook, headwaters north of Briggs Road, Westport to confluence with Bread and Cheese Brook, Westport.	1.4 miles	B	Not applicable	Not applicable	NWQI Waterbody
Buzzards Bay	MA95-40	East Branch Westport River	Headwaters, outlet Noquochoke Lake, Dartmouth to Old County Road bridge, Westport.	1.9 miles	B			NWQI Waterbody
Chicopee	MA36-05	Ware River	Wheelwright Pond Dam (NATID: MA00616), New Braintree/Hardwick to Ware Impoundment dam (NATID: MA00594), Ware.	11.5 miles	B (WWF, CSO)	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	63.8
Chicopee	MA36-06	Ware River	Ware Impoundment dam (NATID: MA00594), Ware to Thorndike Dam (NATID: MA00563), Palmer.	10.1 miles	B (WWF, CSO)	<i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Source Unknown	63.7
Chicopee	MA36-11	Sevenmile River	Headwaters, outlet Browning Pond, Spencer to confluence with Cranberry River, Spencer.	7.3 miles	B (WWF, HQW)	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	61.8
Chicopee	MA36-16	Quaboag River	Warren WWTP discharge (NPDES: MA0101567), Warren to Route 32 bridge, Palmer/Monson.	8.7 miles	B (WWF, CSO)	<i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Source Unknown	62.4
Chicopee	MA36-17	Quaboag River	Route 32 bridge, Palmer/Monson to mouth at confluence with Ware River (forming headwaters of Chicopee River), Palmer.	5.3 miles	B (WWF, CSO)	<i>Escherichia Coli (E. Coli)</i>	Discharges from Municipal Separate Storm Sewer Systems (MS4), Source Unknown	62.3
Chicopee	MA36-50	Danforth Brook	Headwaters, east of Charity Road, Hardwick to mouth at confluence with Ware River, Hardwick.	5.8 miles	B	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	61.1
Connecticut	MA34-06	Lampson Brook	Belchertown WWTP discharge, Belchertown to mouth at confluence with Weston Brook, Belchertown.	1.2 miles	B (WWF)	Dissolved Oxygen, <i>Phosphorus, Total</i>	Municipal Point Source Discharges, Wet Weather Discharges (Non-Point Source)	60.5
Connecticut	MA34-11	Manhan River	Outlet Tighe Carmody Reservoir, Southampton to mouth at confluence with Connecticut River, Easthampton.	18.9 miles	B	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	64.0

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in italics)	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Connecticut	MA34-23	Weston Brook	Headwaters, south of State Street (Route 202), Belchertown to mouth at inlet Forge Pond, Granby (WWF applies from the confluence of Lampson Brook in Belchertown to the mouth).	2.7 miles	B (WWF*)	<i>Phosphorus, Total</i>	Source Unknown	60.5
Connecticut	MA34-25	Mill River	Headwaters, outlet Factory Hollow Pond, Amherst to mouth at inlet Lake Warner, Hadley.	5.2 miles	B	<i>Escherichia Coli (E. Coli)</i>	Agriculture, Source Unknown, Unspecified Urban Stormwater	63.8
Connecticut	MA34-28	Mill River	Headwaters (confluence of East and West Branch Mill River, Williamsburg), to outlet Paradise Pond, Northampton.	10 miles	B	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	66.6
Deerfield	MA33-03	Deerfield River	Confluence with North River, Charlemont/Shelburne to confluence with Green River, Greenfield.	16.8 miles	B (WWF)	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	64.3
Deerfield	MA33-04	Deerfield River	Confluence with Green River, Greenfield to confluence with Connecticut River, Greenfield/Deerfield.	2 miles	B (WWF)	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	64.7
Deerfield	MA33-101	South River	Emments Road, Ashfield to confluence with Johnny Bean Brook, Conway (formerly part of MA33-08).	6.1 miles	B (CWF)	<i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Source Unknown	66.5
Deerfield	MA33-102	South River	From confluence with Johnny Bean Brook, Conway to confluence with Deerfield River, Conway (formerly part of MA33-08), (through South River Impoundment formerly segment MA33022).	6.8 miles	B	Physical substrate habitat alterations, <i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Source Unknown	65.9
Deerfield	MA33-19	East Branch North River	Vermont line, Colrain to confluence with West Branch North River, Colrain.	7.5 miles	B (CWF, HQW)	<i>Escherichia Coli (E. Coli)</i>	Agriculture, Source Unknown	67.6

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in <i>italics</i> )	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Deerfield	MA33-30	Green River	From Swimming Pool #2 Dam (National Dam ID MA02321) northwest of Nashs Mill Road, Greenfield to confluence with the Deerfield River, Greenfield (formerly segment MA33-10 and part of segment MA33-09) (HQW applies upstream of former Greenfield WWTF discharge (NPDES# MA0101214), from approximately 0.5 mile upstream of mouth).	3.7 miles	B (CWF, HQW)	Turbidity, Fecal Coliform, <i>Escherichia Coli (E. Coli)</i>	Source Unknown	61.0
Housatonic	MA21-17	Southwest Branch Housatonic River	Headwaters, outlet Richmond Pond, Pittsfield to mouth at confluence with West Branch Housatonic River (forming headwaters Housatonic River), Pittsfield.	5.8 miles	B (CWF, HQW)	Sedimentation/Siltation, <i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Source Unknown	60.8
Housatonic	MA21-19	Housatonic River	Outlet of Woods Pond dam (NATID: MA00731), Lee/Lenox to the Risingdale Impoundment dam (NATID: MA00250), Great Barrington (impoundment formerly segment MA21121).	19.9 miles	B (WWF)	<i>Algae</i> , PCBs In Fish Tissue, <i>Phosphorus, Total</i> , Polychlorinated Biphenyls (PCBs), Zebra mussel, Dreissena polymorph	Industrial Point Source Discharge, Municipal Point Source Discharges, Non-Point Source, Source Unknown, Upstream Source, Illegal Dumps or Other Inappropriate Waste Disposal, Introduction of Non-native Organisms (Accidental or Intentional)	62.2
Hudson: Hoosic	MA11-02	North Branch Hoosic River	From USGS Gage (# 01332000), North Adams to mouth at confluence with Hoosic River, North Adams.	1.5 miles	B (CWF, HQW)	Alteration in stream-side or littoral vegetative covers, Flow Regime Modification, Polychlorinated Biphenyls (PCBs), <i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Channelization, Streambank Modifications/destabilization, Source Unknown, Commercial Districts (Shopping/Office Complexes), Illicit Connections/Hook-ups to Storm Sewers, Municipal (Urbanized High Density Area), Urban Runoff/Storm Sewers	68.1

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in italics)	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Hudson: Hoosic	MA11-03	Hoosic River	Headwaters, outlet Cheshire Reservoir, Cheshire to Adams WWTP discharge (NPDES: MA0100315), Adams.	8.8 miles	B (CWF, HQW)	Alteration in stream-side or littoral vegetative covers, Ambient Bioassays - Chronic Aquatic Toxicity, Flow Regime Modification, Other anthropogenic substrate alterations, Temperature, <i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Channelization, Streambank Modifications/destabilization, Source Unknown, Dam or Impoundment, Discharges from Municipal Separate Storm Sewer Systems (MS4), Illicit Connections/Hook-ups to Storm Sewers, Waterfowl	62.3
Hudson: Hoosic	MA11-05	Hoosic River	Confluence with North Branch Hoosic River, North Adams to the Vermont State line, Williamstown.	8.2 miles	B (WWF)	PCBs In Fish Tissue, Alteration in stream-side or littoral vegetative covers, Flow Regime Modification, <i>Nutrient/Eutrophication Biological Indicators, Escherichia Coli (E. Coli)</i> , Fecal Coliform	Brownfield (Non-npl) Sites, Channelization, Streambank Modifications/destabilization, Agriculture, Municipal Point Source Discharges, Source Unknown, Urban Runoff/Storm Sewers	63.6
Merrimack	MA84A-39	East Meadow River	Headwaters, outlet Neal Pond, Haverhill to inlet Millvale Reservoir, Haverhill.	3 miles	A (PWS, ORW)	<i>Escherichia Coli (E. Coli)</i>	Source Unknown	63.3
Millers	MA35-16	Keyup Brook	Headwaters Great Swamp Northfield State Forest, Northfield, to confluence with Millers River, Erving.	5 miles	B	PCBs In Fish Tissue, <i>Escherichia Coli (E. Coli)</i>	Contaminated Sediments, Releases from Waste Sites or Dumps, Source Unknown	68.7
Narragansett Bay (Shore)	MA53-15	Oak Swamp Brook	Headwaters in Oak Swamp east of School Street, Rehoboth to confluence with Rocky Run, Rehoboth.	3 miles	B	<i>Escherichia Coli (E. Coli)</i>		63.5
Narragansett Bay (Shore)	MA53-16	Rocky Run	Headwaters in wetland east of Simmons Street, Rehoboth to approximately 0.1 mile east of Mason Street, Rehoboth.	8.6 miles	B	<i>Escherichia Coli (E. Coli)</i> , Fecal Coliform		63.5
Nashua	MA81-29	Malagasco Brook	Headwaters southwest of Apron Hill, Boylston through Pine Swamp to mouth at inlet Wachusett Reservoir (South Bay), Boylston.	2.4 miles	A (PWS, ORW)	Benthic Macroinvertebrates Bioassessments, <i>Nutrient/Eutrophication Biological Indicators</i>	Agriculture	68.6

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in <i>italics</i> )	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Quinebaug	MA41-02	Quinebaug River	Sturbridge WWTP outfall (NPDES: MA0100421), Sturbridge to confluence with Cady Brook, Southbridge.	6.5 miles	B (CWF)	<i>Algae</i> , Debris, Trash, Turbidity	Discharges from Municipal Separate Storm Sewer Systems (MS4), Municipal Point Source Discharges, Illegal Dumps or Other Inappropriate Waste Disposal, Unspecified Urban Stormwater	65.1
Nashua	MA81-06	Nashua River	From confluence of Squannacook River, Shirley/Groton/Ayer to Pepperell Dam (NATID: MA00373), Pepperell (through Pepperell Pond formerly segment MA81167).	9.1 miles	B (WWF)	Benthic Macroinvertebrates Bioassessments	Introduction of Non-native Organisms (Accidental or Intentional), Municipal Point Source Discharges, Source Unknown	NWQI Waterbody
Nashua	MA81-07	Nashua River	From Pepperell Dam (NATID: MA00373), Pepperell to New Hampshire state line, Pepperell/Dunstable.	3.7 miles	B (WWF)	<i>Phosphorus, Total</i>	Municipal Point Source Discharges	NWQI Waterbody
Nashua	MA81-20	James Brook	Headwaters, Groton to mouth at mouth at confluence with Nashua River, Ayer/Groton.	3.9 miles	B	Escherichia Coli (E. Coli)	Source Unknown	NWQI Waterbody
Nashua	MA81-64	Reedy Meadow Brook	Headwaters, Reedy Meadow, Groton to mouth at confluence with Nashua River, Pepperell.	2.3 miles	B (CWF)	Not applicable	Not applicable	NWQI Waterbody
Nashua	MA81-81	Unkety Brook	Headwaters, east of Chicopee Row, Groton to mouth at confluence with Nashua River, Dunstable.	6.7 miles	B	Not applicable	Not applicable	NWQI Waterbody
Quinebaug	MA41-03	Quinebaug River	Southbridge WWTP outfall (NPDES: MA0100901), Southbridge to dam (NAT ID: MA00114) just upstream of West Dudley Road, Dudley.	2.2 miles	B (WWF)	Dissolved Oxygen, <i>Nutrients</i> , Physical substrate habitat alterations, <i>Escherichia Coli</i> ( <i>E. Coli</i> ), Fecal Coliform	Dam or Impoundment, Municipal Point Source Discharges, Unspecified Urban Stormwater, Municipal (Urbanized High Density Area)	62.9

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>1</sup>	All Impairment Causes (suspected NPS impairment causes in italics)	All Suspected Sources of Impairment	Average Recovery Potential Index Score
Quinebaug	MA41-06	Cady Brook	Charlton WWTP outfall (NPDES: MA0101141), Charlton to mouth at confluence with the Quinebaug River, Southbridge.	5.1 miles	B (WWF)	Dewatering, <i>Nutrient/Eutrophication Biological Indicators, Escherichia Coli (E. Coli)</i>	Impacts from Hydrostructure Flow Regulation/modification, Municipal Point Source Discharges, Discharges from Municipal Separate Storm Sewer Systems (MS4), Source Unknown	61.0
Quinebaug	MA41-12	Cohasse Brook	From the outlet of Cohasse Brook Reservoir, Southbridge through Wells Pond (formerly pond segment MA41053) to mouth at confluence with the Quinebaug River, Southbridge.	2.7 miles	B	Benthic Macroinvertebrates Bioassessments, Sedimentation/Siltation, <i>Escherichia Coli (E. Coli)</i>	Loss of Riparian Habitat, Unspecified Urban Stormwater	60.5
Quinebaug	MA41-13	Mckinstry Brook	Headwaters, east of Brookfield Road, Charlton (excluding intermittent portion) to mouth at confluence with the Quinebaug River, Southbridge.	7.3 miles	B	Debris, Trash, <i>Escherichia Coli (E. Coli)</i>	Illegal Dumps or Other Inappropriate Waste Disposal, Source Unknown	60.7
Quinebaug	MA41-16	Unnamed Tributary	Unnamed tributary to Mill Brook, headwaters, outlet Sherman Pond, Brimfield to mouth at confluence with Mill Brook, Brimfield.	1.2 miles	B	Benthic Macroinvertebrates Bioassessments, Dissolved Oxygen, Sedimentation/Siltation, <i>Escherichia Coli (E. Coli)</i>	Source Unknown, Non-Point Source	64.1
Westfield	MA32-22	Potash Brook	Source, outlet Dunlap Pond, Blandford to mouth at confluence with Westfield River, Village of Woronoco, Russell.	5.2 miles	B (CWF)	<i>Escherichia Coli (E. Coli)</i>	Wet Weather Discharges (Non-Point Source)	69.0
Westfield	MA32-36	Little River	From Springfield Water Works Intake Dam (NATID: MA00708) northwest of Gorge Road, Russell to Horton's Bridge, Westfield (formerly part of segment MA32-26).	5.8 miles	B (CWF)	Combined Biota/Habitat Bioassessments, <i>Escherichia Coli (E. Coli)</i>	Source Unknown, Discharges from Municipal Separate Storm Sewer Systems (MS4), Wet Weather Discharges (Non-Point Source)	68.3
Westfield	MA32-41	Moose Meadow Brook	Outlet Westfield Reservoir to mouth at confluence with Westfield River, Westfield (formerly part of segment MA32-23).	4.8 miles	B	<i>Escherichia Coli (E. Coli)</i> , Fecal Coliform	Agriculture, Grazing in Riparian or Shoreline Zones	65.9

1. Cold Water Fishery ("CWF"), High Quality Water ("HQW"), Warm Water Fishery ("WWF"), Public Water Supply ("PWS"), Outstanding Resource Water ("ORW")

**Table 2: 2020 Priority Lakes, Ponds and Estuaries for Nonpoint Source 604(b) Program**

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>2</sup>	TNC Classification <sup>1</sup>	Estimated Trophic Status Confidence <sup>1</sup>	All Impairment Causes (NPS priority in <i>italics</i> )	All Suspected Sources of Impairment	RPI_Score
Blackstone	MA51163	Sutton Falls	Sutton	11 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	Very Low	<i>Harmful Algal Blooms, Turbidity</i>	Source Unknown	62.08926
Buzzards Bay	MA95178	Halfway Pond	Plymouth (On 9 October 1997, PALIS ID was changed from 94057 to 95178; therefor, this pond historically reported in South Coastal "94").	215 Acres	B	Warm to Cool, Eutrophic, Acidic	Known	<i>Harmful Algal Blooms</i>	Agriculture, Source Unknown	70.430569
Buzzards Bay	MA95115	Parker Mills Pond	Wareham	73 Acres	B	Warm to Cool, Eutrophic, Acidic	High	Non-Native Aquatic Plants, <i>Phosphorus, Total</i>	Introduction of Non-native Organisms (Accidental or Intentional), Source Unknown	67.0754
Buzzards Bay	MA95080	Leonards Pond	Rochester	49 Acres	B	Warm to Cool, Eutrophic, Acidic	Known	Aquatic Plants (Macrophytes), <i>Chlorophyll-a</i> , Transparency / Clarity, Non-Native Aquatic Plants	Agriculture, Source Unknown, Introduction of Non-native Organisms (Accidental or Intentional)	60.530555
Cape Cod	MA96268	Ryder Pond	Truro	18 Acres	B (ORW)	Cold, Eutrophic, Acidic	Known	Mercury in Fish Tissue, Dissolved Oxygen, <i>Phosphorus, Total</i>	Atmospheric Deposition - Toxics, Source Unknown	68.05
Buzzards Bay	MA95-37	West Branch Westport River	West of Quail Trail, Westport to mouth at Westport Harbor/Westport River, Westport.	1.29 square miles	SA (SFO, HQW)	Not applicable	Not applicable	Estuarine Bioassessments, <i>Nitrogen, Total, Nutrient/Eutrophication Biological Indicators, Fecal Coliform</i>	Agriculture, Impervious Surface/Parking Lot Runoff, On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Source Unknown	NWQI Waterbody

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>2-</sup>	TNC Classification <sup>1</sup>	Estimated Trophic Status Confidence <sup>1</sup>	All Impairment Causes (NPS priority in <i>italics</i> )	All Suspected Sources of Impairment	RPI_Score
Buzzards Bay	MA95-54	Westport River	From the confluences of the East Branch Westport River and the West Branch Westport River to Rhode Island Sound (at a line from the southwestern tip of Horseneck Point to the easternmost point near Westport Light), Westport (includes Westport Harbor and Hulda Cove).	0.74 square miles	SA (SFO)	Not applicable	Not applicable	Fecal Coliform		NWQI Waterbody
Buzzards Bay	MA95-59	Snell Creek	'Marcus' Bridge', Westport to confluence with East Branch Westport River, Westport.	0.01 square miles	SA (SFO)	Not applicable	Not applicable	Fecal Coliform		NWQI Waterbody
Buzzards Bay	MA95-41	East Branch Westport River	Old County Road bridge, Westport to the mouth at Westport Harbor/Westport River, Westport (excluding Horseneck Channel).	2.65 square miles	SB (SFR, HQW)	Not applicable	Not applicable	Estuarine Bioassessments, <i>Nitrogen, Total, Nutrient/Eutrophication Biological Indicators</i> , Fecal Coliform	Agriculture, Impervious Surface/Parking Lot Runoff, On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Animal Feeding Operations (NPS), Dairies, Discharges from Municipal Separate Storm Sewer Systems (MS4), Grazing in Riparian or Shoreline Zones	NWQI Waterbody
Buzzards Bay	MA95-88	The Let	From north of East Beach Road, Westport to the confluence with Horseneck Channel, Westport.	0.22 square miles	SA (SFO)	Not applicable	Not applicable	Not applicable	Not applicable	NWQI Waterbody



Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>2</sup>	TNC Classification <sup>1</sup>	Estimated Trophic Status Confidence <sup>1</sup>	All Impairment Causes (NPS priority in italics)	All Suspected Sources of Impairment	RPI_Score
Buzzards Bay	MA95-87	Horseneck Channel	From the outlet of The Let to the confluence with the East Branch Westport River (east of Route 88), Westport.	0.24 square miles	SA (SFO)	Not applicable	Not applicable	Not applicable	Not applicable	NWQI Waterbody
Cape Cod	MA96039	Cliff Pond	Brewster	190 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	High	<i>Harmful Algal Blooms</i>	Source Unknown	66.417
Chicopee	MA36025	Browning Pond	Oakham/Spencer	106 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	High	Mercury in Fish Tissue, Non-Native Aquatic Plants, <i>Nutrient/Eutrophication Biological Indicators</i>	Atmospheric Deposition - Toxics, Introduction of Non-native Organisms (Accidental or Intentional), Source Unknown	65.18227
Chicopee	MA36050	Dean Pond	Oakham	64 Acres	B	Warm to Cool, Eutrophic, Acidic	High	<i>Algae</i> , Turbidity	Source Unknown	68.903258
Chicopee	MA36150	Sugden Reservoir	Spencer	85 Acres	B	Warm to Cool, Eutrophic, Acidic	Medium	<i>Nutrient/Eutrophication Biological Indicators</i>		63.542066
Connecticut	MA34103	Lake Wyola	Shutesbury	124 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	High	<i>Nutrient/Eutrophication Biological Indicators, Phosphorus, Total</i>		70.828098
Connecticut	MA34042	Leverett Pond	Leverett	91 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	High	Eurasian Water Milfoil, <i>Myriophyllum spicatum</i> , Non-Native Aquatic Plants, <i>Nutrient/Eutrophication Biological Indicators</i>		70.371496
Connecticut	MA34024	Forge Pond	Granby	72 Acres	B (WWF)	Warm to Cool, Eutrophic, Circumneutral	High	<i>Nutrient/Eutrophication Biological Indicators</i> , Non-Native Aquatic Plants	Source Unknown, Introduction of Non-native Organisms (Accidental or Intentional)	62.922719

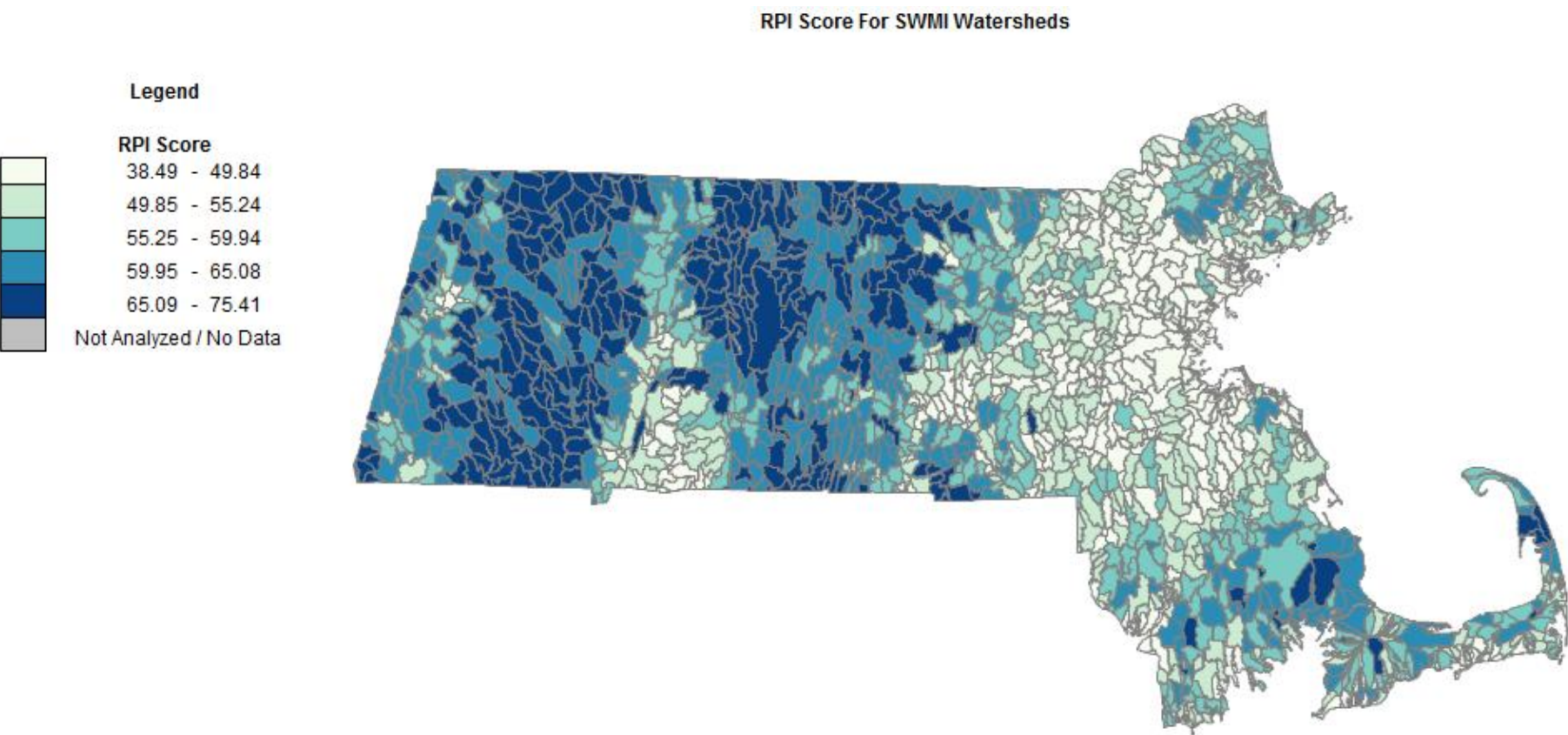
Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>2-</sup>	TNC Classification <sup>1</sup>	Estimated Trophic Status Confidence <sup>1</sup>	All Impairment Causes (NPS priority in <i>italics</i> )	All Suspected Sources of Impairment	RPI_Score
Connecticut	MA34005	Arcadia Lake	Belchertown	32 Acres	B	Warm to Cool, Eutrophic, Acidic	Medium	Non-Native Aquatic Plants, <i>Nutrient/Eutrophication Biological Indicators</i>	Introduction of Non-native Organisms (Accidental or Intentional), On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Source Unknown	63.104639
French	MA42030	Jones Pond	Charlton/Spencer	30 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	High	Aquatic Plants (Macrophytes), <i>Nutrient/Eutrophication Biological Indicators</i>		65.627657
French	MA42018	Gore Pond	Dudley/Charlton	169 Acres	B	Warm to Cool, Eutrophic, Acidic	Known	<i>Algae</i> , Non-Native Aquatic Plants, Turbidity, Dissolved Oxygen		62.724832
French	MA42015	Dutton Pond	Leicester	6 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	Medium	<i>Nutrient/Eutrophication Biological Indicators, Phosphorus, Total</i>		61.242092
French	MA42029	Hudson Pond	Oxford/Sutton	15 Acres	B	Warm to Cool, Eutrophic, Acidic	High	Aquatic Plants (Macrophytes), <i>Nutrient/Eutrophication Biological Indicators</i>		60.950462
Housatonic	MA21040	Lake Garfield	Monterey	255 Acres	B	Warm to Cool, Eutrophic, Circumneutral	Known	Mercury in Fish Tissue, Dissolved Oxygen, Eurasian Water Milfoil, <i>Myriophyllum spicatum</i> , Non-Native Aquatic Plants, <i>Phosphorus, Total</i>	Atmospheric Deposition - Toxics, Source Unknown, Introduction of Non-native Organisms (Accidental or Intentional), Internal Nutrient Recycling	66.377084

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>2-</sup>	TNC Classification <sup>1</sup>	Estimated Trophic Status Confidence <sup>1</sup>	All Impairment Causes (NPS priority in <i>italics</i> )	All Suspected Sources of Impairment	RPI_Score
Housatonic	MA21014	Lake Buel	Monterey/New Marlborough	191 Acres	B	Cold, Eutrophic, Alkaline	Known	Eurasian Water Milfoil, Myriophyllum spicatum, Non-Native Aquatic Plants, Dissolved Oxygen, Dissolved Oxygen Supersaturation, <i>Phosphorus, Total</i>	Introduction of Non-native Organisms (Accidental or Intentional), Internal Nutrient Recycling, Source Unknown	65.680063
Housatonic	MA21057	Laurel Lake	Lee/Lenox	174 Acres	B	Very Cold, Oligo-Mesotrophic, Alkaline	Known	Dissolved Oxygen, Dissolved Oxygen Supersaturation, Eurasian Water Milfoil, Myriophyllum spicatum, Non-Native Aquatic Plants, <i>Phosphorus, Total</i> , Zebra mussel, Dreissena polymorph	Source Unknown, Introduction of Non-native Organisms (Accidental or Intentional), Internal Nutrient Recycling	62.62757
Hudson: Hoosic	MA11002	Cheshire Reservoir, North Basin	[North Basin] Cheshire	284 Acres	B	Warm to Cool, Eutrophic, Alkaline	Known	Eurasian Water Milfoil, Myriophyllum spicatum, Non-Native Aquatic Plants, <i>Nutrient/Eutrophication Biological Indicators</i>	Introduction of Non-native Organisms (Accidental or Intentional), Agriculture, On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Source Unknown	66.5
Hudson: Hoosic	MA11019	Cheshire Reservoir, South Basin	[South Basin] Cheshire/Lanesborough	92 Acres	B	Warm to Cool, Eutrophic, Alkaline	High	<i>Algae</i> , Eurasian Water Milfoil, Myriophyllum spicatum, Non-Native Aquatic Plants	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Source Unknown, Introduction of Non-native Organisms (Accidental or Intentional)	65.5

Watershed	Segment ID	Waterbody Name	Description	Size	Class <sup>2</sup>	TNC Classification <sup>1</sup>	Estimated Trophic Status Confidence <sup>1</sup>	All Impairment Causes (NPS priority in <i>italics</i> )	All Suspected Sources of Impairment	RPI_Score
Millers	MA35063	Reservoir No. 1	Athol	8 Acres	A (PWS, ORW)	Cold, Eutrophic, Acidic	Medium	Aquatic Plants (Macrophytes), <i>Nutrient/Eutrophication Biological Indicators</i>		69.468054
Millers	MA35111	Tully Lake	Royalston/Athol	214 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	High	<i>Harmful Algal Blooms</i>	Source Unknown	64.528432
Millers	MA35099	Whites Mill Pond	Winchendon	42 Acres	B	Warm to Cool, Eutrophic, Acidic	High	Aquatic Plants (Macrophytes), <i>Nutrient/Eutrophication Biological Indicators</i>		66.916969
Millers	MA35056	Parker Pond	Gardner	32 Acres	B	Warm to Cool, Eutrophic, Circumneutral	High	Aquatic Plants (Macrophytes), <i>Nutrient/Eutrophication Biological Indicators</i> , Non-Native Aquatic Plants		65.745802
South Coastal	MA94132	Russell Millpond	Plymouth	42 Acres	B	Warm to Cool, Oligo-Mesotrophic, Acidic	Low	<i>Algae</i> , Fish Passage Barrier	Source Unknown, Hydrostructure Impacts on Fish Passage	64.500404
South Coastal	MA94136	Savery Pond	Plymouth	29 Acres	B	Warm to Cool, Eutrophic, Acidic	High	<i>Harmful Algal Blooms</i>	Agriculture, Source Unknown	61.794998
Taunton	MA62124	Muddy Cove Brook Pond	Dighton	23 Acres	B	Warm to Cool, Eutrophic, Circumneutral	High	<i>Algae</i> , Turbidity	Source Unknown	61.521213

1. Olivero-Sheldon, A. and M.G. Anderson. 2016. Northeast Lake and Pond Classification. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA
2. Cold Water Fishery ("CWF"), High Quality Water ("HQW"), Warm Water Fishery ("WWF"), Public Water Supply ("PWS"), Outstanding Resource Water ("ORW"), Shellfishing Open ("SFO")

Figure 1: Output from the Recovery Potential Screening Tool



**Table 3: Recovery Potential Screening Tool Indicator Setup**

Indicator Type	Indicator Name	Weight
Ecological Indicator	Mean Index of Ecological Integrity (INSTATE)	1
Ecological Indicator	Infiltration BMP Suitability (Ksat um/s) (INSTATE)	1
Ecological Indicator	Watershed % Forest (INSTATE)	1
Ecological Indicator	Stream Corridor (30.5M) % Forest (INSTATE)	1
Ecological Indicator	Open Water Buffer (30.5M) % Forest (INSTATE)	1
Ecological Indicator	CNFI (INSTATE)	1
Stressor Indicator	% Lake/Estuary SQMI Impaired (INSTATE)	1
Stressor Indicator	% Stream Miles Impaired (INSTATE)	1
Stressor Indicator	Impaired Waterbody/Cause (MA) Comb (#) (INSTATE)	1
Stressor Indicator	N Yield (lb/sqmi) (INSTATE)	2
Stressor Indicator	P Yield (lb/sqmi) (INSTATE)	2
Stressor Indicator	Watershed % Impervious (INSTATE)	2
Stressor Indicator	Stream Corridor (30.5M) % Crop (INSTATE)	1
Stressor Indicator	Stream Corridor (30.5M) % Pasture (INSTATE)	1
Stressor Indicator	Watershed % Cropland (INSTATE)	1
Stressor Indicator	Watershed % Pasture (INSTATE)	1
Social Indicator	% Area not in MS4 (INSTATE)	2
Social Indicator	% Lake:Estuary TMDLs Completed (INSTATE)	1
Social Indicator	% Stream TMDLs Completed (INSTATE)	1
Social Indicator	CC Score (INSTATE)	1
Social Indicator	% Lake:/Estuary Assessed (INSTATE)	1
Social Indicator	Land Use Complexity (INSTATE)	1
Social Indicator	PWS Wells (#/sq. mi.) (INSTATE)	1

**Table 4: List of Impairment Causes likely due to NPS pollution**

Cause
Algae
Escherichia Coli (E. Coli)
Bottom Deposits
Flocculant Masses
Phosphorus, Total
Scum/Foam
Turbidity
Benthic Macroinvertebrates Bioassessments
Dissolved Oxygen
Nutrient/Eutrophication Biological Indicators
Sedimentation/Siltation
Total Suspended Solids (TSS)
Temperature
Chloride
Harmful Algal Blooms
Fecal Coliform
Enterococcus
Transparency / Clarity
Chlorophyll-a
Dissolved Oxygen Supersaturation
Fish Passage Barrier
Estuarine Bioassessments
Nitrogen, Total
Combined Biota/Habitat Bioassessments
Alteration in stream-side or littoral vegetative covers
Habitat Assessment
Nutrients

**Table 4: List of Priority Impairment Causes Likely Due to NPS Pollution (all related to pathogen or nutrient impairments)**

Escherichia Coli (E. Coli)
Algae
Phosphorus, Total
Nutrient/Eutrophication Biological Indicators
Harmful Algal Blooms
Chlorophyll-a
Nitrogen, Total
Nutrients

### **References**

Olivero-Sheldon, A. and M.G. Anderson. 2016. Northeast Lake and Pond Classification. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA



## F. ATTACHMENT F: LAKES WITH HISTORY OF HARMFUL ALGAL BLOOMS

Note the following list is not comprehensive and does not include recent posting information (after Sept. 2015) from the Massachusetts Department of Public Health (MA DPH).

Table 1: List of Waterbodies with MA DPH Advisory due to Cyanobacteria or Harmful Algal Blooms (April 2009 to September 2015)

Watershed	Segment	Waterbody Name	Location
Blackstone	MA51073	Indian Lake	Worcester.
Blackstone	MA51078	Jordan Pond	Shrewsbury.
Blackstone	MA51163	Sutton Falls	Sutton.
Boston Harbor: Mystic	MA71014	Ell Pond	Melrose.
Boston Harbor: Mystic	MA71016	Fellsmere Pond	Malden.
Boston Harbor: Mystic	MA71019	Horn Pond	Woburn.
Boston Harbor: Mystic	MA71-05	Malden River	Headwaters south of Exchange Street, Malden to confluence with Mystic River, Everett/Medford.
Boston Harbor: Mystic	MA71-02	Mystic River	Outlet Lower Mystic Lake, Arlington/Medford to Amelia Earhart Dam, Somerville/Everett.
Boston Harbor: Mystic	MA71040	Spy Pond	Arlington.
Boston Harbor: Mystic	MA71045	Wedge Pond	Winchester.
Buzzards Bay	MA95178	Halfway Pond	Plymouth (On 9 October 1997, PALIS ID was changed from 94057 to 95178; therefor, this pond historically reported in South Coastal "94").
Buzzards Bay	MA95088	Little Long Pond	Plymouth.
Buzzards Bay	MA95180	Queen Sewell Pond	Bourne (previously reported with PALIS # 96253).
Buzzards Bay	MA95166	White Island Pond, East Basin	(East Basin) Plymouth/Wareham.
Cape Cod	MA96039	Cliff Pond	Brewster.
Cape Cod	MA96077	Elbow Pond	Brewster.
Cape Cod	MA96126	Hamblin Pond	Barnstable.
Cape Cod	MA96140	Hinckleys Pond	Harwich.
Cape Cod	MA96185	Lovells Pond	Barnstable.
Cape Cod	MA96198	Middle Pond	Barnstable.
Cape Cod	MA96355	Moll Pond	Eastham.
Cape Cod	MA96218	Mystic Lake	Barnstable.
Cape Cod	MA96225	North Pond	Barnstable.
Cape Cod	MA96277	Santuit Pond	Mashpee.
Cape Cod	N/A	Schoolhouse Pond	Barnstable.

Watershed	Segment	Waterbody Name	Location
Cape Cod	MA96301	Smith Pond	Brewster.
Cape Cod	MA96319	Uncle Harvey Pond	Orleans.
Cape Cod	MA96331	Walkers Pond	Brewster.
Charles	MA72010	Brookline Reservoir	Brookline.
Charles	MA72-38	Charles River	From Boston University Bridge, Boston/Cambridge to mouth at the New Charles River Dam (NATID: MA01092), Boston (formerly part of segment MA72-08).
Charles	MA72-07	Charles River	From Chestnut Street, Needham/Dover to Watertown Dam (NATID: MA00456), Watertown.
Charles	MA72-36	Charles River	From Watertown Dam (NATID: MA00456), Watertown to the Boston University Bridge, Boston/Cambridge (formerly part of segment MA72-08).
Charles	MA72030	Crystal Lake	Newton.
Charles	MA72052	Jamaica Pond	Boston.
Charles	MA72107	Scarboro Golf Course Pond	Boston.
Chicopee	MA36130	Quaboag Pond	Brookfield/East Brookfield.
Concord (SuAsCo)	MA82026	Dean Park Pond	Shrewsbury.
Concord (SuAsCo)	MA82017	Chauncy Lake	Westborough.
Concord (SuAsCo)	MA82029	Dudley Pond	Wayland.
Concord (SuAsCo)	MA82042	Fort Meadow Reservoir	Marlborough/Hudson.
Concord (SuAsCo)	MA82118	White Pond	Concord.
Concord (SuAsCo)	MA82122	Willis Pond	Sudbury.
French	MA42008	Carbuncle Pond	Oxford.
Islands	MA97035	Head of Hummock Pond	Nantucket.
Merrimack	MA84002	Lake Attitash	Amesbury/Merrimac.
Merrimack	MA84044	Nabnasset Pond	Westford.
Merrimack	MA84032	Long Pond	Dracut/Tyngsborough (size indicates portion in Massachusetts).
Merrimack	MA84064	Stevens Pond	North Andover.
Millers	MA35047	Lake Monomonac	Massachusetts portion only. Winchendon/Rindge,N.H.
Millers	MA35111	Tully Lake	Royalston/Athol.
Mystic	MA71043	Upper Mystic Lake	Winchester/Arlington/Medford.
Nashua	MA81122	Lake Shirley	Lunenburg/Shirley.
North Coastal	MA93060	Lake Quannapowitt	Wakefield.
Quinebaug	MA41022	Holland Pond	Holland.

Watershed	Segment	Waterbody Name	Location
South Coastal	MA94043	Furnace Pond	Pembroke.
South Coastal	MA94071	Indian Head Pond	Hanson.
South Coastal	MA94168	Wampatuck Pond	Hanson.
South Coastal	MA94114	Oldham Pond	Pembroke/Hanson.
South Coastal	MA94136	Savery Pond	Plymouth.
Taunton	MA62218	Monponsett Pond, East Basin	[East Basin] Halifax.
Taunton	MA62232	Sassaquin Pond	New Bedford (formerly reported as MA95129).
Taunton	MA62182	Stetson Pond	Pembroke.
Taunton	MA62119	Monponsett Pond, West Basin	[West Basin] Halifax/Hanson.
Ten Mile	MA52022	James V. Turner Reservoir	Seekonk, MA/E. Providence, RI (size indicates portion in Massachusetts).
Westfield	MA32023	Congamond Lakes	[South Basin] Southwick.

## **G. ATTACMENT G: HEALTHY WATERBODY PRIORITIZATION AND ELIGIBLE PROJECTS**

### **Protection of Unimpaired Waters**

MassDEP recognizes that protecting areas of the state where water quality currently meets or exceeds applicable state standards is highly desirable. Proactive protection of healthy waters, particularly those that are at risk of impacts from NPS pollutants, can be a more efficient use of public funds than the long-term restoration projects that would be needed if the waterbody is not protected and becomes impaired.

### **Healthy Watersheds Prioritization Methodology**

Recovery Potential Screening (RPS) is a systematic, comparative method for identifying differences among watersheds that may influence their relative likelihood to be successfully restored or protected. The RPS approach involves identifying a group of watersheds to be compared and a specific purpose for comparison, selecting appropriate indicators in three categories (Ecological, Stressor, Social), calculating index values for the watersheds, and applying the results in strategic planning and prioritization. RPS was developed to provide states and other restoration planners with a systematic, flexible tool that could help them compare watershed differences in terms of key environmental and social factors affecting prospects for restoration success. As such, RPS provides water programs with an easy to use screening and comparison tool that is user-customizable for the geographic area of interest and a variety of specific comparison and prioritization purposes. The RPS Tool is a custom-coded Excel spreadsheet that performs all RPS calculations and generates RPS outputs (rank-ordered index tables, graphs and maps). It was developed several years ago to help users calculate Ecological, Stressor, Social, and Recovery Potential Integrated index scores. Using the Recovery Potential Screen Tool and the recently released Preliminary Healthy Watersheds Assessments, a list of priority unimpaired/high-quality and threatened waters was developed.

A number of ecological, stressor and social indicators, all calculated at the Hydrological Unit Code (HUC) 12 watershed scale, were chosen to identify Healthy Watersheds for prioritization (Table 1). The ecological indicators were chosen to integrate both landuse indicators and biological indicators. Stressor indicators were chosen to highlight stress due to land use, nutrient loading, water use and aquatic connectivity. Social indicators were chosen to integrate a focus on water supply protection, watersheds with protected lands outside of urbanized areas, 319 and USDA NRCS project focus areas and other social metrics. For a definition of each metric see Table 2.

**Table 1: Recovery Potential Screening Tool Indicator Setup**

<b>Indicator Type</b>	<b>Indicator Name</b>	<b>Weight</b>
Ecological Indicator	Slope, Standard Deviation in WS	1
Ecological Indicator	% Rare Ecosystem in WS	1
Ecological Indicator	Stream Corridor (30.5M) % Forest (INSTATE)	2
Ecological Indicator	EBTJV Intact (INSTATE)	3
Ecological Indicator	NFHAP HCI (INSTATE)	3
Ecological Indicator	Confluences (#/mi) (INSTATE)	1
Ecological Indicator	Stream Density (mi/sqmi) (INSTATE)	1

Indicator Type	Indicator Name	Weight
Ecological Indicator	CFR_density_mi_perSqMi	3
Stressor Indicator	Watershed % Impervious (INSTATE)	1
Stressor Indicator	Watershed % Cropland (INSTATE)	1
Stressor Indicator	Watershed % Pasture (INSTATE)	1
Stressor Indicator	Anthropogenic Cover % Change (INSTATE)	1
Stressor Indicator	CWDI (INSTATE)	1
Stressor Indicator	Aquatic Barriers / Dams (#/sqmi) (INSTATE)	1
Stressor Indicator	N Yield (lb/sqmi) (INSTATE)	1
Stressor Indicator	P Yield (lb/sqmi) (INSTATE)	1
Stressor Indicator	Dam Storage Ratio in WS	1
Social Indicator	% of HUC12 Instate (MA)	1
Social Indicator	% Protected Land, All Types (2019)	5
Social Indicator	USDA Conservation Reserve Program Area in WS	1
Social Indicator	National Wild and Scenic Rivers, Presence/Absence in WS	1
Social Indicator	% Drinking Water Source Protection Area, Surface	3
Social Indicator	% Drinking Water Source Protection Area, Ground	3
Social Indicator	303d Vision Priority Flag	1
Social Indicator	Nonpoint Control Projects Count	1
Social Indicator	Land Use Complexity (INSTATE)	1
Social Indicator	NRCS Obligated Projects (#/sq. mi.) (INSTATE)	1
Social Indicator	% Area not in MS4 (INSTATE)	5
Social Indicator	CC Score (INSTATE)	1

Watersheds showing high recoverability potential (Recovery Potential Index in the upper quartile) were selected for further analysis. All unimpaired waterbodies with MassDEP defined segments were assigned their appropriate recovery potential score by HUC12. For these 250 waterbodies the EPA Preliminary Healthy Watershed Assessment metrics were examined. The statewide vulnerability index scores (PHWA\_VULN\_NDX\_ST\_2016) were assigned to each waterbody. Waterbodies within each HUC12 were assigned the same vulnerability index score. For these 250 waterbodies the percentile of each waterbodies' statewide vulnerability index score was calculated. The waterbodies were then assigned a vulnerability category. Waterbodies scoring in the upper quartile were assigned a high vulnerability rating, with those in the 25th to 75th percentile being assigned a medium vulnerability rating and the first quartile was assigned low vulnerability rating. Waterbodies in a HUC12 where the majority of the watershed was located outside of Massachusetts were not assigned a vulnerability rating. The goal of this work was to identify healthy watersheds with high vulnerability as a priority for protection. See Table 3 in for Priority Healthy Waterbodies by MassDEP Segment ID and Vulnerability Status. Using an analysis of mussel richness and MassDEP segments (Carmignani 2020) healthy waterbodies which have a mussel richness of 3 or greater are starred and bolded

### Eligible Projects

Eligible Healthy Waterbody Projects include a watershed based plan which is used to guide watershed restoration activities. The main types of projects which will be eligible for funding include:

- **Streams: Geomorphology and Habitat Improvements**- In areas where the degradation of a healthy watershed's stream channel structure, floodplain structure and/or habitat has been documented, planning efforts to improve stream geomorphological structure and habitat are eligible. Eligible planning activities include but are not limited to:
  - Riparian corridor protection through use of river corridor easements which seek to restore natural channel structure (sinuosity etc)
  - Efforts to improve habitat through:
    - reconnection of stream channel to floodplain
    - habitat improvement through inclusion of large woody debris into stream
  
- **Streams: Nutrient, Sediment, and Pathogen Pollution Reduction**- In healthy watersheds where healthy water quality is present documentation of nutrient and pathogen pollution sources and planning efforts to reduce nutrient, sediment, and pathogen pollution are eligible. Eligible activities include but are not limited to:
  - Selection of cost effective agricultural best management practices
  - Selection of Cost effective BMP practices which focus on erosion reduction/sediment retention and nutrient pollution

Eligible projects should include a compilation of previous and/or current streamflow, water quality, and landscape data and analysis for the individual waterbodies and their watershed. Watershed analysis tools and reports include various models (GWLFE, Model My Watershed®), NRCS conservation planning, citizen monitoring networks, other monitoring data, etc. Previous data and analysis should clearly document that nonpoint source pollution is the principal threat or significant source of pollution to the waterbodies within the healthy watershed.

## References

USEPA recently released the Preliminary Healthy Watersheds Assessments, which can be found at <https://www.epa.gov/hwp/download-2017-preliminary-healthy-watersheds-assessments>

Carmignani, J. 2020. Mussel Richness by MassDEP segment (GIS layer file). Email to Matthew Reardon, dated November 10, 2020.

Table 2: Recovery Potential Screening Tool Indicator Names and Definitions

Indicator Type	Indicator Name	Weight	Definition
Ecological Indicator	Slope, Standard Deviation in WS	1	Standard deviation of slope in the HUC12 (in degrees). Source data was the NHDPlus2 National Elevation Dataset (NED) Snapshot. (See also NED Snapshot glossary definition).
Ecological Indicator	% Rare Ecosystem in WS	1	Percent of the HUC12 classified as a rare ecosystem based on ecosystem size, shape, and type. Source data was the U.S. Geological Survey (USGS) National Gap Analysis Program (GAP) land cover dataset (version 2, 2011). Ecological systems in the GAP land cover dataset were scored according to relative rarity based on area, spatial pattern, and uniqueness. Rarity scores ranged from 0 (not rare) to 100 (very rare); any ecological system with a score of 75 or greater was classified as rare. Equation used: Area of Rare Ecosystems in HUC12 / HUC12 Land Area * 100. This indicator was calculated for EPA EnviroAtlas. Additional information on source data and calculation methods can be found at: <a href="https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7B5E591817-C13D-498A-BA0D-F3D28D986324%7D">https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7B5E591817-C13D-498A-BA0D-F3D28D986324%7D</a> .
Ecological Indicator	Stream Corridor (30.5M) % Forest (INSTATE)	2	Forests category from MA Land Use 2005."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Ecological Indicator	EBTJV Intact (INSTATE)	3	Watersheds identified as having intact brook trout habitat by the Eastern Brook trout Joint Venture (HUC12 scale only)."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Ecological Indicator	NFHAP HCI (INSTATE)	3	Habitat Condition Index from National Fish habitat Action Plan Assessment."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Ecological Indicator	Confluences (#/mi) (INSTATE)	1	All stream confluences/stream miles."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Ecological Indicator	Stream Density (mi/sqmi) (INSTATE)	1	Stream miles divided by watershed square miles."(INSTATE)" denotes that the indicator was only calculated for the areas within Massachusetts.
Ecological Indicator	CFR_density_mi_perSqMi	3	Density of DFG Coldwater Fishery Resource waterbodies in miles per square mile of the HUC12.
Stressor Indicator	Watershed % Impervious (INSTATE)	1	% Impervious area from MA dataset (1M resolution)."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.

Indicator Type	Indicator Name	Weight	Definition
Stressor Indicator	Watershed % Cropland (INSTATE)	1	Cropland, Orchard, Nursery categories from MA Land Use 2005. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Stressor Indicator	Watershed % Pasture (INSTATE)	1	Pasture category from MA Land Use 2005. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Stressor Indicator	Anthropogenic Cover % Change (INSTATE)	1	%Percent change between NLCD 2001 and NLCD 2006 urban and agricultural categories. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Stressor Indicator	CWDI (INSTATE)	1	Combined Water Demand and Intensity Index - Higher score = ecologically better flow conditions. Based on USGS metrics. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Stressor Indicator	Aquatic Barriers / Dams (#/sqmi) (INSTATE)	1	Number of dams from MA DCR Dams dataset per square mile. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Stressor Indicator	N Yield (lb/sqmi) (INSTATE)	1	USGS SPARROW Incremental Model Results for Nitrogen Yield. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Stressor Indicator	P Yield (lb/sqmi) (INSTATE)	1	USGS SPARROW Incremental Model Results for Phosphorus Yield. "(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.



Indicator Type	Indicator Name	Weight	Definition
Stressor Indicator	Dam Storage Ratio in WS	1	The ratio of dam storage volume in the HUC12 to pre-development annual streamflow at the HUC12 outlet (acre-feet/acre-feet per year). Source data for dam storage was the 2012 National Anthropogenic Barrier Dataset (NABD; <a href="https://www.sciencebase.gov/catalog/item/537f6a7de4b021317a86e594">https://www.sciencebase.gov/catalog/item/537f6a7de4b021317a86e594</a> ; downloaded August 2013), a national geospatial dataset of dam locations and attributes. The NABD was created by editing the US Army Corps of Engineer's 2009 National Inventory of Dams (NID) to delete dams removed after the release of the 2009 NID and duplicate dams along state boundaries. Dam storage volume was calculated by summing the normal storage volume reported in the 2012 NABD for dams located in the HUC12. For dams with normal storage volume reported as zero acre-feet, the maximum storage volume was used instead. Source data for streamflow was the NHDPlus2 Extended Unit Runoff Method (EROM) attribute table ( <a href="http://www.horizon-systems.com/NHDPlus/NHDPlusV2_data.php">http://www.horizon-systems.com/NHDPlus/NHDPlusV2_data.php</a> ; downloaded February 2016). The NHDPlus2 EROM table contains pre-development mean annual flow estimates for the period 1971-2000 for stream features in the NHDPlus2. Pre-development mean annual streamflow at the HUC12 outlet was set to the value reported for the NHDPlus2 stream reach located at the HUC12 outlet in the NHDPlus2 EROM table (field Q0001C). Blank values indicate that the HUC12 contains a dam but does not have dam storage reported in the NABD and/or does not have reference streamflow reported in NHDPlus2.
Social Indicator	% of HUC12 Instate (MA)	1	Percent of total HUC12 area that is comprised by Massachusetts. Source data was the US Census Bureau 2013 TIGER state boundary dataset from <a href="http://www2.census.gov/geo/tiger/TIGER2013/STATE/">http://www2.census.gov/geo/tiger/TIGER2013/STATE/</a> downloaded in July 2013. Equation used: Instate Area / HUC12 Area * 100.
Social Indicator	% Protected Land, All Types (2019)	5	Percent of the HUC12 that is designated as protected by the Protected Areas Database of the United States Version 2.0. Source data was the Protected Areas Database of the United States Version 2.0 (March 2019 update) from the USGS Gap Analysis Program ( <a href="http://gapanalysis.usgs.gov/">http://gapanalysis.usgs.gov/</a> ); all feature class types were included in the analysis ("FeatClass" = designation, easement, fee, marine, or proclamation). All protected lands polygons within the database were used for the calculation. Equation used: PADS Protected Land Area / HUC12 Area * 100.

Indicator Type	Indicator Name	Weight	Definition
Social Indicator	USDA Conservation Reserve Program Area in WS	1	The area of land enrolled in the US Department of Agriculture (USDA) Conservation Reserve Program (CRP) in the HUC12. Under the USDA CRP, landowners enroll environmentally sensitive land to discontinue crop production and instead plant perennial species that provide environmental benefits. Values reflect categorical ranges of enrolled acres in the HUC12: 1= 0 acres; 2= <50 acres; 3= 50-100 acres; 4= 100-200 acres; 5= 200-500 acres; 6= 500-1000 acres; 7= >1000 acres. Source data were USDA Farm Service Agency of Conservation Reserve Program enrollment boundaries from circa-January 2016. This indicator was calculated for EPA EnviroAtlas. Additional information on source data and calculation methods can be found at: <a href="https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7B7c1090d3-619f-40f7-bb01-054173ddbaef%7D">https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7B7c1090d3-619f-40f7-bb01-054173ddbaef%7D</a>
Social Indicator	National Wild and Scenic Rivers, Presence/Absence in WS	1	Presence/absence of waters designated as National Wild and Scenic Rivers in the HUC12. A value of 1 indicates that the HUC12 contains a National Wild and Scenic river. A threshold of 0.25 river miles was used as a cutoff value for defining presence/absence. Source data was the National Wild and Scenic River Segments map layer maintained by the US Forest Service, National Park Service, Bureau of Land Management and the Fish and Wildlife Service (October 2019 version; <a href="https://data.fs.usda.gov/geodata/edw/edw_resources/meta/S_USA.WildScenicRiverSegment_LN.xml">https://data.fs.usda.gov/geodata/edw/edw_resources/meta/S_USA.WildScenicRiverSegment_LN.xml</a> ).
Social Indicator	% Drinking Water Source Protection Area, Surface	3	Percent of the HUC12 that is classified as a source water protection area (SPA) for public water system (PWS) drinking water sources. Only includes SPAs for surface water sources of drinking water. Source data was a SPA geospatial dataset from the EPA Safe Drinking Water Information System (SDWIS; January 2018 version). Equation used: SPA Area in HUC12 / HUC12 Area * 100.
Social Indicator	% Drinking Water Source Protection Area, Ground	3	Percent of the HUC12 that is classified as a source water protection area (SPA) for public water system (PWS) drinking water sources. Only includes SPAs for groundwater sources of drinking water. Source data was a SPA geospatial dataset from the EPA Safe Drinking Water Information System (SDWIS; January 2018 version). Equation used: SPA Area in HUC12 / HUC12 Area * 100.
Social Indicator	303d Vision Priority Flag	1	Presence of a priority area for water quality restoration or protection within the HUC12. Priority areas for water quality restoration and protection are identified by states under the Clean Water Act 303d Vision ( <a href="https://www.epa.gov/tmdl/impaired-waters-and-tmdls-new-vision-cwa-303d-program-updated-framework-implementing-cwa-303d">https://www.epa.gov/tmdl/impaired-waters-and-tmdls-new-vision-cwa-303d-program-updated-framework-implementing-cwa-303d</a> ). Source data was the US EPA Office of Water database of state priority areas indexed to NHDPlus2 catchments (end of Federal Fiscal Year 2017 version; accessed March 29, 2018).

Indicator Type	Indicator Name	Weight	Definition
Social Indicator	Nonpoint Control Projects Count	1	Count of nonpoint source pollution control projects funded by Clean Water Act Section 319 grants located in the HUC12. Source data was the EPA Grants Reporting and Tracking System (GRTS; <a href="https://iaspub.epa.gov/apex/waters/f?p=110:199">https://iaspub.epa.gov/apex/waters/f?p=110:199</a> ; accessed June 2018). GRTS is the primary tool for tracking Section 319 funded projects by EPA's Nonpoint Source (NPS) Pollution Control Program. A query of the GRTS database was performed in June 2018 to quantify the number of NPS projects per HUC12. Counts include projects entered into GRTS between January 2002 through June 2018 that are ongoing or completed and that have a HUC12 ID for the project stored in GRTS.
Social Indicator	Land Use Complexity (INSTATE)	1	Average polygon size from land use dataset in each HUCwatershed."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Social Indicator	NRCS Obligated Projects (#/sq. mi.) (INSTATE)	1	Fully funded USDA Farm Bill Projects."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Social Indicator	% Area not in MS4 (INSTATE)	5	Areas eligible for 319 funds."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.
Social Indicator	CC Score (INSTATE)	1	Commonwealth Capital Score spatially weighted average from all towns within each HUC watershed."(INSTATE)" denotes that the indicator was only calculated for the HUC areas within Massachusetts.

Table 3: Priority HealthyWaterbodies by MassDEP Segment ID and Vulnerability Status

Basin ID	Basin Name	Segment ID	Waterbody Name	Description	Size (miles)	Class (Qualifiers)	HUC12 Number	HUC12 Name	Ecological Index	Stressor Index	Social Index	RPI Score	RPI Rank	Majority County	Slope_Mean_Value_in_HUC12_Watershed	Perc_MS4_in_HUC12_Watershed	PHWA_HEALTH_NDX_PCT_2016	PHWA_VULN_NDX_ST_2016	Vulnerability Percentile Only Prioritized Waterbodies	Vulnerablilty Status (within prioritized waterbodies only)
11	Hudson: Hoosic	MA11-06	Green River	Headwaters, perennial portion, southwest of Sugarloaf Mountain (west of Ingraham Road), New Ashford to mouth at confluence with Hoosic River, Williamstown.	12.5	B (CWF)	020200030604	Green River	73.68	7.7	57.34	74.44	3	Berkshire County-MA	13.4	0.0	79.02	0.15	0.68	Medium
11	Hudson: Hoosic	MA11-21	East Branch Green River	Headwaters, perennial portion, northeast of Sugarloaf Mountain, New Ashford to mouth at confluence with Green River, New Ashford.	2.2	B	020200030604	Green River	73.68	7.7	57.34	74.44	3	Berkshire County-MA	13.4	0.0	79.02	0.15	0.68	Medium
11	Hudson: Hoosic	MA11-22	West Branch Green River	Headwaters, perennial portion, west of Route 43, Hancock (near New York border) to mouth at confluence with Green River, Williamstown.	7.9	B	020200030604	Green River	73.68	7.7	57.34	74.44	3	Berkshire County-MA	13.4	0.0	79.02	0.15	0.68	Medium
11	Hudson: Hoosic	MA11-28	Hopper Brook	Headwaters, perennial portion, east of Sperry Road, Williamstown to mouth at confluence with the Green River, Williamstown.	4	B	020200030604	Green River	73.68	7.7	57.34	74.44	3	Berkshire County-MA	13.4	0.0	79.02	0.15	0.68	Medium
11	Hudson: Hoosic	MA11-06	Green River	Headwaters, perennial portion, southwest of Sugarloaf Mountain (west of Ingraham Road), New Ashford to mouth at confluence with Hoosic River, Williamstown.	12.5	B (CWF)	020200030605	Hemlock Brook-Hoosic River	67.61	6.24	57.44	72.93	10	Berkshire County-MA	11.2	0.0	76.10	0.16	0.70	Medium
11	Hudson: Hoosic	MA11-09	Hemlock Brook	Headwaters, perennial portion, south of Route 2 in the Taconic Trail State Park, Williamstown to mouth at confluence with the Hoosic River, Williamstown.	7.1	B (CWF)	020200030605	Hemlock Brook-Hoosic River	67.61	6.24	57.44	72.93	10	Berkshire County-MA	11.2	0.0	76.10	0.16	0.70	Medium

\* 3 or more freshwater mussel species (Carmignani 2020)

Basin ID	Basin Name	Segment ID	Waterbody Name	Description	Size (miles)	Class (Qualifiers)	HUC12 Number	HUC12 Name	Ecological Index	Stressor Index	Social Index	RPI Score	RPI Rank	Majority County	Slope_Mean_Value_in_HUC12_Watershed	Perc_MS4_in_HUC12_Watershed	PHWA_HEALTH_NDX_PCT_2016	PHWA_VULN_NDX_ST_2016	Vulnerability Percentile Only Prioritized Waterbodies	Vulnerability Status (within prioritized waterbodies only)
11	Hudson: Hoosic	MA11-25	Buxton Brook	Headwaters, perennial portion, west of Petersburg Road, Williamstown to mouth at confluence with Hemlock Brook, Williamstown.	1.3	B (CWF)	020200030605	Hemlock Brook-Hoosic River	67.61	6.24	57.44	72.93	10	Berkshire County-MA	11.2	0.0	76.10	0.16	0.70	Medium
11	Hudson: Hoosic	MA11-04	Hoosic River	Adams WWTP discharge (NPDES: MA0100315), Adams to confluence with North Branch Hoosic River, North Adams.	5.4	B (WWF)	020200030605	Hemlock Brook-Hoosic River	67.61	6.24	57.44	72.93	10	Berkshire County-MA	11.2	0.0	76.10	0.16	0.70	Medium
11	Hudson: Hoosic	MA11-20	Paull Brook	Headwaters, outlet of Mt. Williams Reservoir, North Adams to mouth at confluence with unnamed tributary, Williamstown.	2.1	B	020200030605	Hemlock Brook-Hoosic River	67.61	6.24	57.44	72.93	10	Berkshire County-MA	11.2	0.0	76.10	0.16	0.70	Medium
11	Hudson: Hoosic	MA11-23	Broad Brook	From Vermont state line, Williamstown to mouth at confluence with the Hoosic River, Williamstown.	2.2	B	020200030605	Hemlock Brook-Hoosic River	67.61	6.24	57.44	72.93	10	Berkshire County-MA	11.2	0.0	76.10	0.16	0.70	Medium
12	Hudson: Kinderhook	MA12-02	Bently Brook	Headwaters, perennial portion, south of Brodie Mountain Road, Lanesborough to mouth at confluence with Kinderhook Creek, Hancock.	2.1	B	020200060601	West Brook-Kinderhook Creek	62.85	3.48	36.21	65.19	36	Rensselaer County-NY	10.0	0.0	NA	NA	Not Classified	High
21	Housatonic	MA21-32	Tyler Brook	Headwaters, northwest of Driscoll Road, Windsor to mouth at confluence with Windsor Brook, Windsor.	2.6	A (PWS, ORW, CWF)	011000050102	Wahconah Falls Brook	69.79	3.41	45.82	70.73	14	Berkshire County-MA	5.2	2.6	90.73	0.11	0.59	Medium
21	Housatonic	MA21-09	Windsor Brook	Headwaters, southeast of Fobes Hill (west of Savoy Hollow Road), Windsor to mouth at inlet Windsor Reservoir, Hinsdale.	6.1	A (PWS, ORW)	011000050102	Wahconah Falls Brook	69.79	3.41	45.82	70.73	14	Berkshire County-MA	5.2	2.6	90.73	0.11	0.59	Medium
21	Housatonic	MA21-12	Cady Brook	Headwaters, northwest corner Peru, to mouth at inlet of Windsor Reservoir, Hinsdale.	3.5	A (PWS, ORW)	011000050102	Wahconah Falls Brook	69.79	3.41	45.82	70.73	14	Berkshire County-MA	5.2	2.6	90.73	0.11	0.59	Medium
21	Housatonic	MA21-10	Anthony Brook	Headwaters, outlet Anthony Pond, Dalton to mouth at confluence with Wahconah Falls Brook, Dalton.	2.6	B	011000050102	Wahconah Falls Brook	69.79	3.41	45.82	70.73	14	Berkshire County-MA	5.2	2.6	90.73	0.11	0.59	Medium

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21	Housatonic	MA21-11	Wahconah Falls Brook	Headwaters, outlet Windsor Reservoir, Windsor to mouth at confluence with East Branch Housatonic River, Dalton.	3.4	B	011000050102	Wahconah Falls Brook	69.79	3.41	45.82	70.73	14	Berkshire County-MA	5.2	2.6	90.73	0.11	0.59	Medium
21	Housatonic	MA21-34	Churchill Brook	Headwaters, perennial portion in the Pittsfield State Forest, Hancock (north of Honwee Mountain, Lanesborough) to mouth at inlet Onota Lake, Pittsfield.	2.8	B (CWF)	011000050101	West Branch Housatonic River	69.22	7.13	34.95	65.68	33	Berkshire County-MA	7.1	25.8	52.20	0.24	0.94	High
21	Housatonic	MA21-36	Town Brook	Headwaters, perennial portion, Lanesborough to mouth at inlet Pontoosuc Lake, Lanesborough.	7.9	B	011000050101	West Branch Housatonic River	69.22	7.13	34.95	65.68	33	Berkshire County-MA	7.1	25.8	52.20	0.24	0.94	High
21	Housatonic	MA21-37	Rawson Brook	Headwaters, north of Cronk Road, Monterey to mouth at confluence with Konkapot River, Monterey.	5.9	B	011000050301	Konkapot River	64.09	6.28	36.58	64.8	40	Berkshire County-MA	5.8	0.0	65.85	0.21	0.84	High
31	Farmington	MA31-19	Slocum Brook	Headwaters, outlet small unnamed wetland pond south of Hartland Road, Tolland to MA/CT border, Tolland.	3.3	B (CWF, HQW)	010802070204	Lower West Branch Farmington River	38.15	2.7	63.27	66.24	26	Litchfield County-CT	7.1	3.6	NA	NA	Not Classified	Not Classified
31	Farmington	MA31-20	Taylor Brook	Headwaters, west of Clubhouse Road, Tolland to mouth at confluence with Slocum Brook, Tolland.	3.3	B (CWF, HQW)	010802070204	Lower West Branch Farmington River	38.15	2.7	63.27	66.24	26	Litchfield County-CT	7.1	3.6	NA	NA	Not Classified	Not Classified
31	Farmington	MA31-22	Thorp Brook	Headwaters, east of Dodds Mountain, south of Sears Road, Sandisfield to mouth at confluence with West Branch Farmington River, Sandisfield.	2.7	B (CWF, HQW)	010802070204	Lower West Branch Farmington River	38.15	2.7	63.27	66.24	26	Litchfield County-CT	7.1	3.6	NA	NA	Not Classified	Not Classified
31	Farmington	MA31-23	Moody Brook	Headwaters, outlet Trout Pond, Tolland to mouth at confluence with West Branch Farmington River, Sandisfield.	1.8	B (CWF, HQW)	010802070204	Lower West Branch Farmington River	38.15	2.7	63.27	66.24	26	Litchfield County-CT	7.1	3.6	NA	NA	Not Classified	Not Classified

\* 3 or more freshwater mussel species (Carmignani 2020)

Basin ID	Basin Name	Segment ID	Waterbody Name	Description	Size (miles)	Class (Qualifiers)	HUC12 Number	HUC12 Name	Ecological Index	Stressor Index	Social Index	RPI Score	RPI Rank	Majority County	Slope_Mean_Value_in_HUC12_Watershed	Perc_MS4_in_HUC12_Watershed	PHWA_HEALTH_NDX_PCT_2016	PHWA_VULN_NDX_ST_2016	Vulnerability Percentile Only Prioritized Waterbodies	Vulnerability Status (within prioritized waterbodies only)
31	Farmington	MA31-24	Richardson Brook	Headwaters, north of New Boston Road (Route 57), Tolland to mouth at confluence with Moody Brook, Tolland.	1.3	B (CWF, HQW)	010802070204	Lower West Branch Farmington River	38.15	2.7	63.27	66.24	26	Litchfield County-CT	7.1	3.6	NA	NA	Not Classified	Not Classified
31	Farmington	MA31-16	Hubbard Brook	Headwaters, confluence Babcock Brook and Hall Pond Brook, Tolland to MA/CT border Granville.	4	B (CWF, HQW)	010802070301	Hubbard River	65.75	3.08	47.15	69.94	19	Hampden County-MA	5.0	0.0	NA	0.20	0.76	High
31	Farmington	MA31-30	Pond Brook	Headwaters, outlet Parsons Pond, Granville to mouth at confluence with Hubbard Brook, Granville.	4.6	B (CWF, HQW)	010802070301	Hubbard River	65.75	3.08	47.15	69.94	19	Hampden County-MA	5.0	0.0	NA	0.20	0.76	High
31	Farmington	MA31-31	Halfway Brook	Headwaters, outlet of wetland in Granville State Forest, Tolland to mouth at confluence with Hubbard Brook, Granville.	1.8	B (CWF, HQW)	010802070301	Hubbard River	65.75	3.08	47.15	69.94	19	Hampden County-MA	5.0	0.0	NA	0.20	0.76	High
31	Farmington	MA31-32	Babcock Brook	Headwaters west of Amos Case Road, Tolland to mouth at confluence with Hall Pond Brook (forming headwaters Hubbard Brook), Tolland.	3.3	B (CWF, HQW)	010802070301	Hubbard River	65.75	3.08	47.15	69.94	19	Hampden County-MA	5.0	0.0	NA	0.20	0.76	High
31	Farmington	MA31-34	Hall Pond Brook	Headwaters, outlet Hall Pond, Tolland to mouth at confluence with Babcock Brook (forming headwaters Hubbard Brook), Tolland.	2.3	B (CWF, HQW)	010802070301	Hubbard River	65.75	3.08	47.15	69.94	19	Hampden County-MA	5.0	0.0	NA	0.20	0.76	High
31	Farmington	MA31-02	Fall River	Headwaters, outlet Larkum Pond, Otis to mouth at confluence with West Branch Farmington River, Otis.	0.8	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
31	Farmington	MA31-04	Shales Brook	Source north of Tyringham Road, Becket to mouth at inlet Shaw Pond, Becket.	1.2	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High

\* 3 or more freshwater mussel species (Carmignani 2020)

Basin ID	Basin Name	Segment ID	Waterbody Name	Description	Size (miles)	Class (Qualifiers)	HUC12 Number	HUC12 Name	Ecological Index	Stressor Index	Social Index	RPI Score	RPI Rank	Majority County	Slope_Mean_Value_in_HUC12_Watershed	Perc_MS4_in_HUC12_Watershed	PHWA_HEALTH_NDX_PCT_2016	PHWA_VULN_NDX_ST_2016	Vulnerability Percentile Only Prioritized Waterbodies	Vulnerability Status (within prioritized waterbodies only)
31	Farmington	MA31-05	Unnamed Tributary	Unnamed tributary to Shaw Pond, source in wetlands southwest of Route 90 and east of Route 20, Becket to mouth at inlet Shaw Pond, Becket (excluding "gravel pit" pond).	1.3	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
31	Farmington	MA31-07	Unnamed Tributary	Source, outlet Shaw Pond, Becket/Otis to mouth at inlet Hayden Pond, Otis.	0.9	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
31	Farmington	MA31-08	Cone Brook	Headwaters, drainage from Angerman Swamp in Beartown State Forest, Otis to mouth at inlet Hayden Pond, Otis.	2.1	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
31	Farmington	<b>MA31-09*</b>	<b>Unnamed Tributary</b>	Unnamed tributary to West Branch Farmington River, source north of Route 23 and east of Harrington Road, Otis to mouth at confluence with West Branch Farmington River, Otis.	2	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
31	Farmington	MA31-10	Dimmock Brook	Outlet of Dimmock Brook Pond, Otis to mouth at confluence with West Branch Farmington River, Otis.	1	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
31	Farmington	MA31-28	Miner Brook	Headwaters, outlet wetland east of North Beech Plain Road, Sandisfield to mouth at confluence with West Branch Farmington River, Sandisfield.	1.5	B (CWF, HQW)	010802070202	Upper West Branch Farmington River	40.91	2.56	51.87	63.41	50	Berkshire County-MA	5.9	0.0	86.34	0.22	0.85	High
32	Westfield	MA32-01	West Branch Westfield River	Headwaters, confluence of Depot Brook and Yokum Brook, Becket to mouth at confluence with Westfield River, Huntington (HQW qualifier applies to portion of river upstream of Chester Center).	17.2	B (CWF, HQW*)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium

\* 3 or more freshwater mussel species (Carmignani 2020)



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32	Westfield	MA32-17	Depot Brook	Source, north of Beach Road, Washington to mouth at confluence with Yokum Brook (forming headwaters of West Branch Westfield River), Becket.	5.9	B (CWF)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium
32	Westfield	MA32-18	Shaker Mill Brook	Headwaters, west of Watson Road, Washington to mouth at confluence with Depot Brook, Becket.	4.1	B (CWF)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium
32	Westfield	MA32-19	Yokum Brook	Headwaters, outlet Buckley-Dunton Lake, south of County Road, Becket to mouth at confluence with Depot Brook (forming headwaters of West Branch Westfield River), Becket.	4	B (CWF)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium
32	Westfield	MA32-20	Walker Brook	Headwaters, outlet Center Pond (north of YMCA Road), Becket to mouth at confluence with West Branch Westfield River, Chester.	7.1	B (CWF)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium
32	Westfield	MA32-42	Factory Brook	Headwaters, east of Ridge Road, in Middlefield State Forest, Peru to mouth at confluence with West Branch Westfield River, Middlefield.	7.6	B (CWF)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium
32	Westfield	MA32-43	Geer Brook	Headwaters, outlet Garnet Lake, Peru to mouth at confluence with Factory Brook, Middlefield.	1.8	B (CWF)	010802060201	Upper West Branch Westfield River	69.57	3.57	54.56	73.52	7	Berkshire County-MA	7.3	0.0	NA	0.10	0.46	Medium
32	Westfield	MA32-49	Mill Brook	Headwaters, south of Hawley Street, Plainfield to mouth at confluence with Westfield River, Cummington.	6	B (CWF)	010802060101	Mill Brook-Westfield River	71.57	4.5	52.56	73.21	8	Berkshire County-MA	6.8	0.0	89.27	0.07	0.07	Low

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32	Westfield	MA32-50	Bartlett Brook	Headwaters (perennial portion), between Mountain and Prospect streets, Plainfield to mouth at confluence with Westfield River, Cummington.	2	B (CWF)	010802060101	Mill Brook-Westfield River	71.57	4.5	52.56	73.21	8	Berkshire County-MA	6.8	0.0	89.27	0.07	0.07	Low
32	Westfield	MA32-51	Westfield Brook	Headwaters, outlet wetland north of Hill Cemetery Road, Windsor to mouth at confluence with Westfield River, Cummington.	8.6	B (CWF)	010802060101	Mill Brook-Westfield River	71.57	4.5	52.56	73.21	8	Berkshire County-MA	6.8	0.0	89.27	0.07	0.07	Low
32	Westfield	MA32-52	Shaw Brook	Headwaters, north of Shaw Road, Windsor to mouth at confluence with Westfield Brook, Windsor.	2.2	B (CWF)	010802060101	Mill Brook-Westfield River	71.57	4.5	52.56	73.21	8	Berkshire County-MA	6.8	0.0	89.27	0.07	0.07	Low
32	Westfield	MA32-53	Steep Bank Brook	Headwaters (perennial portion), northeast of Bates Road, Windsor to mouth at confluence with Westfield River, Windsor.	1	B (CWF)	010802060101	Mill Brook-Westfield River	71.57	4.5	52.56	73.21	8	Berkshire County-MA	6.8	0.0	89.27	0.07	0.07	Low
32	Westfield	MA32-11	Meadow Brook	Headwaters, outlet unnamed pond south of Route 116, Plainfield to mouth at confluence with Westfield River, Cummington.	4.6	B	010802060101	Mill Brook-Westfield River	71.57	4.5	52.56	73.21	8	Berkshire County-MA	6.8	0.0	89.27	0.07	0.07	Low
32	Westfield	MA32-03	Middle Branch Westfield River	Outlet Littleville Dam, Chester/Huntington to mouth at confluence with Westfield River, Huntington.	1.1	B (WWF, HQW)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	MA32-12	Swift River	Headwaters, west of Plainfield Road, Hawley to mouth at confluence with Westfield River at village of Swift River, Cummington.	11.3	B (CWF)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	MA32-44	Pond Brook	Headwaters, outlet Norwich Pond, Huntington to mouth at confluence with Westfield River, Huntington.	3.1	B (CWF)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium

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32	Westfield	MA32-45	Bronson Brook	Headwaters, north of Trouble Road, Cummington to mouth at confluence with West Falls Branch, Worthington. (formerly identified by the Massachusetts Stream Classification Program as West Branch).	4.2	B (CWF)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	MA32-46	Kearnery Brook	Headwaters, north of Powell Road and east of FAA Road, Cummington to mouth at confluence with Bronson Brook, Worthington.	3.2	B (CWF)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	MA32-47	Tower Brook	Headwaters, north of Dodwells Road, Cummington to mouth at confluence with Westfield River, Chesterfield.	4.1	B (CWF)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	MA32-14	Watts Stream	Headwaters, north of Buffington Hill Road, Worthington to mouth at confluence with Wards Stream (forming headwaters Little River), Ringville (locality in Worthington).	5.2	B	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	MA32-15	Wards Stream	Headwaters, south of Cold Street, Worthington to mouth at confluence with Watts Stream (forming headwaters Little River), Ringville (locality in Worthington).	5.1	B	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium
32	Westfield	<b>MA32-05*</b>	<b>Westfield River</b>	Confluence with Middle Branch Westfield River, Huntington to Route 20 bridge, Westfield.	17.7	B (WWF)	010802060105	Little River-Westfield River	71.47	6.38	53.94	73.01	9	Hampshire County-MA	7.8	0.0	93.17	0.13	0.62	Medium

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32	Westfield	MA32-32	Kinne Brook	Headwaters (perennial portion), north of Adams Road, Worthington to mouth at confluence with Middle Branch Westfield River, Chester.	4	A (PWS, ORW, CWF)	010802060104	Middle Branch Westfield River	70.97	3.64	51.38	72.9	11	Hampshire County-MA	7.7	0.0	97.07	0.11	0.57	Medium
32	Westfield	MA32-64	Fuller Brook	Headwaters, outlet wetland west at Mongue Road, Peru to mouth at confluence with Middle Branch Westfield River, Worthington.	4.2	A (PWS, ORW, CWF)	010802060104	Middle Branch Westfield River	70.97	3.64	51.38	72.9	11	Hampshire County-MA	7.7	0.0	97.07	0.11	0.57	Medium
32	Westfield	MA32-10	Glendale Brook	Headwaters in a wetland in Peru State Forest, Peru to mouth at confluence with Middle Branch Westfield River, Middlefield.	6	A (PWS, ORW)	010802060104	Middle Branch Westfield River	70.97	3.64	51.38	72.9	11	Hampshire County-MA	7.7	0.0	97.07	0.11	0.57	Medium
32	Westfield	MA32-66	Middle Branch Westfield River	From Kinnebrook Road, Dayville (locality in Chester) to inlet of Littleville Lake, just upstream from boat ramp (off southern end of Kinnebrook Road), Chester.	0.6	A (PWS, ORW)	010802060104	Middle Branch Westfield River	70.97	3.64	51.38	72.9	11	Hampshire County-MA	7.7	0.0	97.07	0.11	0.57	Medium
32	Westfield	MA32-03	Middle Branch Westfield River	Outlet Littleville Dam, Chester/Huntington to mouth at confluence with Westfield River, Huntington.	1.1	B (WWF, HQW)	010802060104	Middle Branch Westfield River	70.97	3.64	51.38	72.9	11	Hampshire County-MA	7.7	0.0	97.07	0.11	0.57	Medium
32	Westfield	MA32-33	Bedlam Brook	Headwaters (perennial portion), north of Blandford Road, Blandford to mouth at confluence with Peebles Brook, Blandford.	2.8	A (PWS, ORW)	010802060302	Cobble Mountain Reservoir	68.31	5.37	47.99	70.31	16	Hampden County-MA	5.3	0.0	94.15	0.21	0.83	High
32	Westfield	MA32-01	West Branch Westfield River	Headwaters, confluence of Depot Brook and Yokum Brook, Becket to mouth at confluence with Westfield River, Huntington (HQW qualifier applies to portion of river upstream of Chester Center).	17.2	B (CWF, HQW*)	010802060202	Lower West Branch Westfield River	55.19	3.11	58.41	70.17	18	Hampden County-MA	8.4	0.0	95.12	0.17	0.72	Medium

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32	Westfield	MA32-20	Walker Brook	Headwaters, outlet Center Pond (north of YMCA Road), Becket to mouth at confluence with West Branch Westfield River, Chester.	7.1	B (CWF)	010802060202	Lower West Branch Westfield River	55.19	3.11	58.41	70.17	18	Hampden County-MA	8.4	0.0	95.12	0.17	0.72	Medium
32	Westfield	MA32-61	Roaring Brook	Headwaters, outlet small unnamed pond north of Lyman Road, Chester to mouth at confluence with West Branch Westfield River, Huntington.	4.5	B (CWF)	010802060202	Lower West Branch Westfield River	55.19	3.11	58.41	70.17	18	Hampden County-MA	8.4	0.0	95.12	0.17	0.72	Medium
32	Westfield	MA32-62	Abbott Brook	Headwaters (perennial portion), north of Abbott Hill Road, Chester to mouth at confluence with West Branch Westfield River, Chester.	2.5	B (CWF)	010802060202	Lower West Branch Westfield River	55.19	3.11	58.41	70.17	18	Hampden County-MA	8.4	0.0	95.12	0.17	0.72	Medium
32	Westfield	MA32-31	Sanderson Brook	Headwaters (perennial portion), in the Chester/Blandford State Forest, north of Chester Road, Blandford to mouth at confluence with West Branch Westfield River, Chester.	2.7	B	010802060202	Lower West Branch Westfield River	55.19	3.11	58.41	70.17	18	Hampden County-MA	8.4	0.0	95.12	0.17	0.72	Medium
32	Westfield	MA32-01	West Branch Westfield River	Headwaters, confluence of Depot Brook and Yokum Brook, Becket to mouth at confluence with Westfield River, Huntington (HQW qualifier applies to portion of river upstream of Chester Center).	17.2	B (CWF, HQW*)	010802060301	Moose Meadow Brook-Westfield River	51.81	6.38	53.09	66.18	28	Hampden County-MA	7.7	9.9	74.63	0.21	0.80	High
32	Westfield	MA32-30	Roaring Brook	Headwaters (perennial portion), north of Horse Hill in Huntington State Forest, east of County Road, Huntington to mouth at confluence with Westfield River, Montgomery.	4.3	B (CWF)	010802060301	Moose Meadow Brook-Westfield River	51.81	6.38	53.09	66.18	28	Hampden County-MA	7.7	9.9	74.63	0.21	0.80	High

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32	Westfield	MA32-60	Stage Brook	Headwaters, confluence of Freeland Brook and Wigwam Brook, Russell to mouth at confluence with Black Brook (forming headwaters Bradley Brook), Russell.	1	B (CWF)	010802060301	Moose Meadow Brook-Westfield River	51.81	6.38	53.09	66.18	28	Hampden County-MA	7.7	9.9	74.63	0.21	0.80	High
32	Westfield	MA32-21	Bradley Brook	Headwaters, confluence Black and Stage brooks, Russell to mouth at confluence with Westfield River, Russell.	0.7	B	010802060301	Moose Meadow Brook-Westfield River	51.81	6.38	53.09	66.18	28	Hampden County-MA	7.7	9.9	74.63	0.21	0.80	High
32	Westfield	MA32-05	Westfield River	Confluence with Middle Branch Westfield River, Huntington to Route 20 bridge, Westfield.	17.7	B (WWF)	010802060301	Moose Meadow Brook-Westfield River	51.81	6.38	53.09	66.18	28	Hampden County-MA	7.7	9.9	74.63	0.21	0.80	High
32	Westfield	MA32-40	Moose Meadow Brook	Headwaters, west of Bungay Mountain, east of New State Road, Montgomery to inlet Westfield Reservoir, Montgomery (formerly part of segment MA32-23).	2.9	B	010802060301	Moose Meadow Brook-Westfield River	51.81	6.38	53.09	66.18	28	Hampden County-MA	7.7	9.9	74.63	0.21	0.80	High
32	Westfield	MA32-55	Kellog Brook	Headwaters (perennial portion), east of College Highway (Route 202), Southwick to mouth at confluence with Great Brook, Westfield.	2.8	B (CWF)	010802060304	Great Brook	61.49	15.53	47.71	64.55	41	Hampden County-MA	3.2	37.4	48.78	0.35	0.99	High
32	Westfield	MA32-25	Great Brook	Source, outlet Congamond Lakes, Southwick to mouth at confluence with Westfield River, Westfield.	10.8	B	010802060304	Great Brook	61.49	15.53	47.71	64.55	41	Hampden County-MA	3.2	37.4	48.78	0.35	0.99	High
32	Westfield	MA32-12	Swift River	Headwaters, west of Plainfield Road, Hawley to mouth at confluence with Westfield River at village of Swift River, Cummington.	11.3	B (CWF)	010802060102	Swift River	49.51	5.58	48.5	64.14	42	Franklin County-MA	5.0	0.0	98.54	0.08	0.33	Medium
32	Westfield	MA32-48	Stones Brook	Headwaters, outlet small unnamed pond north of Dyers Road, Ashfield to mouth at confluence with Swift River, Goshen.	4.7	B (CWF)	010802060102	Swift River	49.51	5.58	48.5	64.14	42	Franklin County-MA	5.0	0.0	98.54	0.08	0.33	Medium

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32	Westfield	MA32-54	North Branch Swift River	Headwaters, outlet small unnamed pond west of Grant Street, Plainfield to mouth at confluence with Swift River, Cummington.	6.9	B (CWF)	010802060102	Swift River	49.51	5.58	48.5	64.14	42	Franklin County-MA	5.0	0.0	98.54	0.08	0.33	Medium
33	Deerfield	MA33-06	North River	From confluence of East and West branches of the North River, Colrain to confluence with Deerfield River, Shelburne/Charlemont. (Segment changed 1997 - East Branch no longer included in length) (HQW applies upstream of Barnhardt discharge (NPDES# MA0003697)).	3.3	B (CWF, HQW*)	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-27	West Branch North River	Headwaters, confluence of West Branch Brook and Burrington Brook, Heath to confluence with East Branch North River, forming headwaters North River, Colrain.	7.2	B (CWF, HQW)	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-90	West Branch Brook	Headwaters, Vermont-Massachusetts stateline, Heath to confluence with Burrington Brook (forming headwaters West Branch North River), Heath.	5.4	B (CWF)	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-124	Kinsman Brook	Headwaters north of Colrain Stage Road, Heath to confluence with Davenport Brook forming headwaters Taylor Brook, Heath.	1.8	B (CWF)	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-40	Burrington Brook	Headwaters, east of Sadoga Road, Heath to confluence with West Branch Brook (forming headwaters West Branch North River), Heath.	2	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low

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33	Deerfield	MA33-41	Burton Brook	Vermont-Massachusetts stateline, Rowe to confluence with West Branch Brook, Heath.	1.3	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-42	Cary Brook	Perennial portion north of East Catamount Hill Road, Colrain to confluence with West Branch North River, Colrain.	0.5	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-51	Fox Brook	From the outlet of Fox Brook Upper Reservoir, Colrain to confluence with North River, Colrain.	0.8	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-77	Roberts Brook	Headwaters, east of Hosmer Road, Heath to confluence with West Branch North River, Colrain.	1	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-89	Vincent Brook	Headwaters, perennial portion east of Stetson Brothers Road, Colrain to confluence with West Branch North River, Colrain.	1	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-80	Sanders Brook	Vermont/Massachusetts border, Heath to confluence with West Branch North River, Colrain.	2.8	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-24	Tissdell Brook	Headwaters perennial portion east of Christian Hill Cemetary, Colrain to confluence with West Branch North River, Colrain.	1.7	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-31	Taylor Brook	From the confluence of Kinsman Brook and Davenport Brook, Heath to confluence with West Branch North River, Colrain.	2.6	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-111	Davenport Brook	Headwaters outlet Papoose Lake, Heath to confluence with Kinsman Brook forming headwaters Taylor Brook, Heath.	0.9	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low

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33	Deerfield	MA33-120	Dickenson Brook	Headwaters west of Sumner Stetson Road, Heath to confluence with West Branch Brook, Heath.	0.7	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-110	Unnamed Tributary	Unnamed tributary to Taylor Brook, headwaters, Catamount State Forest, Colrain to confluence Taylor Brook, Colrain.	1.5	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-109	Unnamed Tributary	Unnamed tributary to West Branch North River, headwaters west of Wilson Hill Road, Colrain to confluence with West Branch North River, Colrain.	1.4	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-130	Meadow Brook	Headwaters, outlet McLeod Pond, Colrain to mouth at confluence with North River, Colrain.	1.2	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-131	Johnson Brook	Headwaters, west of Route 112 (Main Road) and northeast at Houghton Hill, Colrain to the mouth at confluence with North River, Colrain.	1.4	B	010802030302	Taylor Brook-North River	76.22	6.72	61.18	76.89	1	Franklin County-MA	9.0	0.0	97.56	0.08	0.12	Low
33	Deerfield	MA33-37	Black Brook	Headwaters, west of Chapel Road, Savoy to confluence with Cold River, Savoy.	3.3	B (CWF)	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-86	Tannery Brook	Outlet of Tannery Pond, Savoy to confluence with Gulf Brook, Savoy.	0.7	B (CWF)	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-05	Cold River	Source in Florida to confluence with Deerfield River, Charlemont.	13.7	B (CWF)	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-55	Green River	Headwaters, perennial portion in Florida State Forest west of Blackstone Road, Florida to confluence with Cold River, Florida.	1.3	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low

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33	Deerfield	MA33-78	Ross Brook	Headwaters, south of Tannery Road, Savoy to confluence with Tannery Brook, Savoy.	2	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-87	Tower Brook	Headwaters, west of Central Shaft Road, Florida (drains wetland) to confluence with Cold River, Florida.	1.9	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-56	Gulf Brook	Outlet of Burnett Pond, Savoy to confluence with Cold River, Savoy.	3.5	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-66	Manning Brook	Headwaters, north of South County Road, Florida to confluence with Cold River, Florida.	1.4	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-88	Trout Brook	Headwaters, perennial portion west of Hawks Mountain, Charlemont/Hawley to confluence with Cold River, Charlemont.	0.6	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-121	Staples Brook	Headwaters east of Spruce Hill, North Adams to confluence Tower Brook, Florida.	1.4	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-122	White Brook	Headwaters east of Olson Road, Florida to confluence with the Cold River, Florida.	1.6	B	010802030202	Cold River	76.36	2.8	50.23	74.6	2	Berkshire County-MA	9.8	0.0	NA	0.08	0.12	Low
33	Deerfield	MA33-73	Phelps Brook	Perennial portion, north of Main Road, Monroe to inlet of Phelps Brook Reservoir, Monroe.	1.2	A (PWS, ORW)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-50	Fife Brook	Headwaters, perennial portion southwest of Spruce Mountain in the Monroe State Forest, Monroe to confluence with Deerfield River, Florida.	2.6	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-91	Whitcomb Brook	Headwaters, perennial portion east of Whitcomb Hill Road, Florida to confluence with Deerfield River, Florida.	0.6	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low

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33	Deerfield	MA33-48	Dunbar Brook	Vermont-Massachusetts stateline, Monroe to confluence with Deerfield River, Monroe.	5.6	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-01	Deerfield River	Outlet Sherman Reservoir Monroe/Rowe, to confluence with Cold River, Charlemont (through former segment, Lower Reservoir MA33028).	13.1	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-12	Pelham Brook	Headwaters outlet Pelham Lake, Rowe to confluence with Deerfield River, Charlemont.	4.8	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-127	Todd Brook	Headwaters east of Coon Hill, Charlemont to confluence with Deerfield River, Charlemont.	1.2	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-128	Unnamed Tributary	Unnamed tributary to Deerfield River known as 'Bear Swamp Outflow', from headwaters north of Tunnel Road, Rowe to confluence with Deerfield River, Rowe.	1.3	B (CWF)	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-53	Granger Brook	Headwaters, west of Bliss Road, Florida to confluence with Dunbar Brook, Monroe.	1.2	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-43	Cascade Brook	Headwaters, perennial portion southeast of Moore Road, Florida to confluence with Deerfield River, Florida.	1.8	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-57	Haley Brook	Headwaters north of Main Street, Monroe to confluence with Dunbar Brook, Monroe.	1.5	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-85	Steele Brook	Headwaters, perennial portion north of Tunnel Road, Rowe to confluence with Pelham Brook, Rowe.	1.7	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low

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33	Deerfield	MA33-76	Rice Brook	Headwaters, north of Hazelton Road, Rowe to confluence with Pelham Brook, Rowe.	1.2	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-123	Parsonage Brook	Headwaters north of Main Road, Monroe to confluence with Dunbar Brook, Monroe.	1.5	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-129	Tuttle Brook	Headwaters east of Leshures Road, Rowe to mouth at confluence with Potter Brook, Rowe.	2	B	010802030201	Pelham Brook-Deerfield River	78.67	3.11	47.47	74.34	4	Franklin County-MA	11.8	0.0	96.59	0.06	0.00	Low
33	Deerfield	MA33-06	North River	From confluence of East and West branches of the North River, Colrain to confluence with Deerfield River, Shelburne/Charlemont. (Segment changed 1997 - East Branch no longer included in length) (HQW applies upstream of Barnhardt discharge (NPDES# MA0003697)).	3.3	B (CWF, HQW*)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-35	Avery Brook	Headwaters, perennial portion south of Colrain Brook Road, Heath to confluence with Deerfield River, Charlemont.	3.7	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-67	Maxwell Brook	Headwaters, located north of Tatro Road, Rowe to confluence with Mill Brook, Charlemont.	3.2	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-93	Willis Brook	Headwaters, perennial portion south of South Road, Heath to confluence with Hartwell Brook, Charlemont.	1.6	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-92	Wilder Brook	Headwaters, east of Flagg Hill Road, Heath to confluence with Deerfield River, Charlemont.	2.9	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low

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33	Deerfield	MA33-33	Albee Brook	Headwaters, north of Dodge Corner Road, Hawley to confluence with Deerfield River, Charlemont.	1	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-01	Deerfield River	Outlet Sherman Reservoir Monroe/Rowe, to confluence with Cold River, Charlemont (through former segment, Lower Reservoir MA33028).	13.1	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-02	Deerfield River	Confluence with Cold River, Charlemont to confluence with North River, Charlemont/Shelburne.	11.4	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-05	Cold River	Source in Florida to confluence with Deerfield River, Charlemont.	13.7	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-11	Chickley River	Headwaters Savoy Mountain State Forest, Savoy to confluence with Deerfield River, Charlemont.	11.1	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-13	Bozrah Brook	Headwaters, located west of East Hawley Road, Hawley (drains wetland) to confluence with Deerfield River, Charlemont.	3	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-14	Mill Brook	Headwaters, originating north of Rowe Road, Heath to confluence with the Deerfield River, Charlemont.	5.7	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-125	Rice Brook	Perennial portion east of Legate Hill Road, Charlemont to confluence with Deerfield River, Charlemont.	3.1	B (CWF)	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-65	Legate Hill Brook	Headwaters, perennial portion north of Blueberry Peak, Charlemont to confluence with Deerfield River, Charlemont.	3.4	B	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low

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33	Deerfield	MA33-58	Hartwell Brook	Headwaters, south of South Heath Road, Charlemont to confluence with Deerfield River, Charlemont.	2.1	B	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-59	Heath Brook	Headwaters, south of West Main Street, Heath to confluence with Mill Brook, Heath.	1	B	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-72	East Oxbow Brook	Headwaters, perennial portion east of Deer Run Lane, Charlemont to confluence with Deerfield River, Charlemont.	1.4	B	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-15	Clesson Brook	Outlet of unnamed pond south of Forget Road, Hawley through Cox Pond to confluence with Deerfield River, Buckland.	10.3	B	010802030205	Mill Brook-Deerfield River	76.22	5.73	52.38	74.29	5	Franklin County-MA	10.4	0.0	92.20	0.08	0.25	Low
33	Deerfield	MA33-69	Mill Brook	Headwaters, outlet Beaver Pond, Hawley to confluence with Chickley River, Hawley.	4.1	B (CWF)	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-11	Chickley River	Headwaters Savoy Mountain State Forest, Savoy to confluence with Deerfield River, Charlemont.	11.1	B (CWF)	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-126	North Brook	Perennial portion north of Harwood Road, Hawley to confluence with Chickley River, Hawley.	1.2	B (CWF)	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-36	Basin Brook	Headwaters, Kenneth M. Dubuque Memorial State Forest, Hawley to confluence with King Brook, Hawley.	2.2	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-39	Brown Brook	Headwaters, perennial portion east of Scott Road, Savoy to confluence with Chickley River, Savoy.	0.4	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-62	Horsefords Brook	Headwaters, west of Bannis Road, Savoy to confluence with Chickley River, Savoy.	1.9	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium

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33	Deerfield	MA33-64	King Brook	Outlet Hallockville Pond, Hawley to confluence with Chickley River, Hawley.	2.1	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-75	Potash Brook	Headwaters, Cranberry Swamp, Hawley (drains wetland) to confluence with Mill Brook, Hawley.	1.4	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-118	Fuller Brook	Perennial portion in Debuque State Forest, Hawley to confluence with Chickley River, Hawley.	0.9	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-119	Tilton Brook	Headwaters in Savoy Mountain State Forest, west of Bannis Road, Savoy to confluence with Chickley River, Savoy.	2	B	010802030203	Chickley River	77.15	3.67	48.61	74.03	6	Franklin County-MA	10.2	0.0	80.98	0.09	0.38	Medium
33	Deerfield	MA33-44	Chapel Brook	Outlet of unnamed pond, Ashfield to confluence with Poland Brook, Conway.	3.4	B (CWF)	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-74	Poland Brook	Confluence with Chapel Brook, Conway to confluence with South River, Conway.	2.6	B (CWF)	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-46	Creamery Brook	Headwaters, perennial portion west of Steady Line Road, Ashfield to confluence with South River, Ashfield.	2.4	B (CWF)	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-63	Johnny Bean Brook	Headwaters, Poland Brook State Wildlife Management Area, Conway to confluence with South River, Conway.	1.7	B	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-71	Nye Brook	Headwaters, perennial portion north of Guinea Gulf (Conway State Forest), Conway to confluence with Poland Brook, Conway.	0.7	B	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-32	Pumpkin Hollow Brook	Headwaters north of Conway State Forest and south of Old Cricket Hill Road, Conway to confluence with South River, Conway.	2.3	B	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium

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33	Deerfield	MA33-115	Unnamed Tributary	Unnamed tributary to Chapel Brook, headwaters west of Bird Hill Road, Ashfield to confluence with Chapel Brook, Ashfield.	1.5	B	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-114	Unnamed Tributary	Headwaters east of Pine Hill Road, Conway to confluence with South River, Conway.	1	B	010802030501	South River	53.63	7.44	52.23	66.14	29	Franklin County-MA	8.6	0.0	73.17	0.09	0.34	Medium
33	Deerfield	MA33-23	Drakes Brook	Headwaters, (perennial portion) west of North Warger Road, Ashfield to confluence with Bear River, Conway.	2.3	B (CWF)	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-112	Hawkes Brook	Headwaters east of Zerah Fiske Road, Shelburne to confluence with Dragon Brook, Shelburne.	1.2	B (CWF)	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-54	Great Brook	Headwaters, perennial portion west at Zerah Fiske Road, Shelburne to confluence with Hawkes Brook, Shelburne.	1.2	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-82	Sids Brook	Headwaters, perennial portion north of Baptist Corner Road, Ashfield to confluence with Drakes Brook, Conway.	1.7	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-83	Sluice Brook	Headwaters, north of Tower Road, Shelburne to confluence with Deerfield River, Shelburne.	3.3	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-81	Sheldon Brook	Headwaters, south of Old Albany Road, Shelburne to confluence with Deerfield River, Deerfield/Greenfield.	1.4	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-22	Shingle Brook	Headwaters north of Guy Manners Road, Shelburne to confluence with the Deerfield River, Deerfield.	2.8	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium

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33	Deerfield	MA33-113	Schneck Brook	Headwaters, north of Wilder Hill Road, Conway to confluence with the Deerfield River, Conway.	2	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-133	Unnamed Tributary	Unnamed tributary to the Deerfield River from headwaters, outlet Goodnow Road Pond, Buckland to mouth at confluence with the Deerfield River, Buckland.	1.5	B	010802030502	Bear River-Deerfield River	50.28	9.57	57.28	66	30	Franklin County-MA	8.2	0.0	83.90	0.10	0.42	Medium
33	Deerfield	MA33-60	Hibbard Brook	Headwaters, north of West Leyden Road, Leyden to confluence with Green River, Leyden.	1.5	A (PWS, ORW, HQW, CWF)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-94	Workman Brook	Headwaters, perennial portion west of East Colrain Road, Colrain (drains wetland) to confluence with Green River, Colrain.	1.4	A (PWS, ORW, HQW, CWF)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-98	Stafford Brook	Headwaters, perennial portion south of East Colrain Road, Colrain to confluence with Green River, Colrain.	1.4	A (PWS, ORW, HQW, CWF)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-99	Katley Brook	Headwaters, east of Kately Hill, Leyden to confluence with Green River, Leyden.	1.3	A (PWS, ORW, HQW, CWF)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-28	Green River	Vermont line, Colrain to water supply dam north of Eunice Williams Drive (Pumping Station Dam, National ID MA02291), Greenfield (formerly part of MA33-09).	8.4	A (PWS, ORW, HQW, CWF)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-49	East Glen Brook	Headwaters, perennial portion north of East Glen Road, Leyden to inlet of Upper Greenfield Reservoir (Glen Brook Upper Reservoir), Leyden.	1.9	A (PWS, ORW)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium

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33	Deerfield	MA33-52	Glen Brook	Headwaters, east of Brattleboro Road, Leyden to inlet of Upper Greenfield Reservoir (Glen Brook Upper Reservoir), Leyden.	3.5	A (PWS, ORW)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-29	Green River	From water supply dam north of Eunice Williams Drive (Pumping Station Dam, National ID MA02291), Greenfield to the Swimming Pool #2 Dam (National Dam ID MA02321) northwest of Nashs Mill Road, Greenfield (formerly part of MA33-09).	4.6	B (CWF, HQW)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-117	Brandy Brook	Headwaters east of North County Road, Leyden to confluence with Glen Brook, Leyden.	1.6	A (PWS, ORW)	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-34	Allen Brook	Headwaters, east of the Shelburne Colrain Road and Route 2 intersection, Shelburne to confluence with Green River, Greenfield.	3.6	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-84	Smead Brook	Headwaters, east of Old Albany Road, Greenfield to confluence with Wheeler Brook, Greenfield.	1.7	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-68	Mccard Brook	Headwaters, east of Oak Hill Road, Leyden to confluence with Mill Brook, Greenfield.	2.1	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-96	Glen Brook	Outlet of Upper Greenfield Reservoir, Leyden to confluence with Green River, Greenfield.	3.2	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-95	Wheeler Brook	Headwaters, south of Old Greenfield Road, Shelburne to confluence with Green River, Greenfield.	2.5	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium

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33	Deerfield	MA33-100	Punch Brook	Headwaters, perennial portion east of Smead Road, Shelburne to confluence with Green River, Greenfield.	2.1	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-105	Unnamed Tributary	Unnamed tributary to Glen Brook, headwaters north of Oak Hill Road, Leyden to confluence Glen Brook, Greenfield.	1.9	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-103	Unnamed Tributary	Unnamed tributary to Hinsdale Brook, perennial portion east of Little Mohawk Road, Shelburne to confluence with Hinsdale Brook, Shelburne.	1.9	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-104	Unnamed Tributary	Unnamed tributary to an unnamed tributary to Hinsdale Brook from Shearer Pond Dam (National Dam ID MA01531), Colrain to confluence with an unnamed tributary to Hinsdale Brook, Shelburne.	0.9	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-132	Stewart Brook	Perennial portion north of Wilson Graves Road, Shelburne to mouth at confluence with Hinsdale Brook, Shelburne.	1	B	010802030402	Lower Green River	50.7	11.91	56.78	65.19	37	Franklin County-MA	7.4	0.0	77.56	0.10	0.49	Medium
33	Deerfield	MA33-61	Unnamed Tributary	Unnamed tributary to Clark Brook locally known as "Hog Hollow Brook", headwaters north of Bray Road, Buckland to confluence with Clark Brook, Buckland.	1.1	B (CWF)	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low
33	Deerfield	MA33-45	Cooley Brook	Headwaters, north of La Belle Road, Hawley to confluence with Clesson Brook, Buckland.	1.5	B	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low
33	Deerfield	MA33-79	Ruddock Brook	Headwaters, west of Dodge Corner Road, Hawley to confluence with Clesson Brook, Buckland.	1.1	B	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low

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33	Deerfield	MA33-15	Clesson Brook	Outlet of unnamed pond south of Forget Road, Hawley through Cox Pond to confluence with Deerfield River, Buckland.	10.3	B	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low
33	Deerfield	MA33-16	Clark Brook	Headwaters, near Moonshine Road (Howes Road)/East Buckland Road, Buckland to confluence with Clesson Brook, Buckland.	3.8	B	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low
33	Deerfield	MA33-26	Smith Brook	Headwaters, outlet Upper Reservoir, Ashfield to confluence with Clesson Brook, Buckland.	2.7	B	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low
33	Deerfield	MA33-116	Unnamed Tributary	Unnamed tributary to Clesson Brook, headwaters north of Avery Road, Buckland to confluence with Clesson Brook, Buckland.	1.8	B	010802030204	Clesson Brook	51.95	8.22	47.88	63.87	44	Franklin County-MA	9.2	0.0	91.22	0.07	0.09	Low
33	Deerfield	MA33-25	Foundry Brook	Headwaters north of Calvin Coombs Road, Colrain to confluence with East Branch North River, Colrain.	2.8	B	010802030301	East Branch North River	42.32	7.6	60.62	65.11	38	Windham County-VT	8.2	0.0	NA	NA	Not Classified	High
33	Deerfield	MA33-106	Spur Brook	Headwaters, outlet small pond just west at intersection of Christian Hill Road and Thompson Road, Colrain to confluence with East Branch North River, Colrain.	2	B	010802030301	East Branch North River	42.32	7.6	60.62	65.11	38	Windham County-VT	8.2	0.0	NA	NA	Not Classified	High
33	Deerfield	MA33-109	Unnamed Tributary	Unnamed tributary to West Branch North River, headwaters west of Wilson Hill Road, Colrain to confluence with West Branch North River, Colrain.	1.4	B	010802030301	East Branch North River	42.32	7.6	60.62	65.11	38	Windham County-VT	8.2	0.0	NA	NA	Not Classified	High
33	Deerfield	MA33-108	Unnamed Tributary	Unnamed tributary to East Branch North River, headwaters outlet Mt. Brook Reservoir, Colrain to confluence with East Branch North River, Colrain.	1.4	B	010802030301	East Branch North River	42.32	7.6	60.62	65.11	38	Windham County-VT	8.2	0.0	NA	NA	Not Classified	High

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33	Deerfield	MA33-107	Unnamed Tributary	Unnamed tributary to the East Branch North River, headwaters south of Fairbanks Road, Colrain to the confluence of the East Branch North River, Colrain.	1.7	B	010802030301	East Branch North River	42.32	7.6	60.62	65.11	38	Windham County-VT	8.2	0.0	NA	NA	Not Classified	High
33	Deerfield	MA33-134	Unnamed Tributary	Unnamed tributary to East Branch North River from headwaters east of Franklin Hill Road and southwest at Franklin Hill, Colrain to mouth at confluence with East Branch North River, Colrain.	0.7	B	010802030301	East Branch North River	42.32	7.6	60.62	65.11	38	Windham County-VT	8.2	0.0	NA	NA	Not Classified	High
34	Connecticut	<b>MA34-41*</b>	<b>Sawmill River</b>	Dudleyville Road, Leverett to mouth at confluence with Connecticut River, Montague (formerly part of MA34-26).	11	B (CWF)	010802010601	Sawmill River	68.35	6.44	55.28	72.4	12	Franklin County-MA	6.0	0.0	84.39	0.14	0.67	Medium
34	Connecticut	MA34-40	Sawmill River	Headwaters, outlet Lake Wyola, Shutesbury to Dudleyville Road, Leverett (formerly part of MA34-26).	2	B	010802010601	Sawmill River	68.35	6.44	55.28	72.4	12	Franklin County-MA	6.0	0.0	84.39	0.14	0.67	Medium
34	Connecticut	MA34-10	Manhan River	Headwaters, northeast of Norwich Pond, Huntington to inlet Tighe Carmody Reservoir, Southampton (thru White Reservoir formely segment MA34100).	6.6	A (PWS, ORW)	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High
34	Connecticut	MA34-16	Tripple Brook	Headwaters, perennial portion, Southampton to mouth at confluence with Manhan River, Southampton.	1	B (CWF)	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High
34	Connecticut	MA34-17	Moose Brook	Headwaters, perennial portion, Southampton to mouth at confluence with Manhan River, Southampton.	2.6	B (CWF)	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High

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34	Connecticut	MA34-54	North Branch Manhan River	Headwaters, perennial portion, north of Northwest Road, Westhampton to mouth at confluence with Manhan River, Easthampton/Southampton.	9.2	B (CWF)	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High
34	Connecticut	MA34-45	Sacket Brook	Headwaters, perennial portion, north of Southampton Road, Montgomery to mouth at confluence with Manhan River, Southampton.	2.1	B (CWF)	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High
34	Connecticut	MA34-12	Potash Brook	Headwaters, perennial portion, Southampton to confluence with Manhan River, Southampton.	1	B	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High
34	Connecticut	MA34-13	Brickyard Brook	Headwaters, perennial portion, Westfield to mouth at confluence with Manhan River, Westfield.	1.6	B	010802010608	Upper Manhan River	70.71	8.54	51.99	71.39	13	Hampshire County-MA	5.4	4.2	58.05	0.23	0.88	High
34	Connecticut	MA34-50	Dean Brook	Headwaters, east of West Pelham Road (at mouth of Baker Brook), Shutesbury to mouth at confluence with Adams Brook (in small "diversion pool" for Atkins Reservoir), Shutesbury.	2.4	A (PWS, ORW, CWF)	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High
34	Connecticut	MA34-59	Nurse Brook	Headwaters, west of Pratt Corner Road, Shutesbury to mouth at confluence with Adams Brook (in small "diversion pool" for Atkins Reservoir), Shutesbury.	1.2	A (PWS, ORW, CWF)	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High
34	Connecticut	MA34-48	Harris Brook	Headwaters, northeast of Enfield Road, Pelham to Intake Reservoir Dam (NATID: MA01270) outlet, Pelham (excluding approximately 0.2 miles through Hawley Reservoir, Pelham).	1.2	A (PWS, ORW, CWF)	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High

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34	Connecticut	MA34-49	Buffum Brook	Headwaters, west of West Pelham Road, Shutesbury to mouth at confluence with Harris Brook, (forming headwaters Amethyst Brook), Pelham.	3.1	B (CWF)	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High
34	Connecticut	MA34-46	Scarboro Brook	Headwaters, outlet Scarboro Pond, Belchertown to mouth at confluence with Hop Brook, Belchertown.	2.3	B (CWF)	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High
34	Connecticut	MA34-35	Amethyst Brook	Headwaters, confluence of Buffum and Harris brooks, Pelham to mouth at confluence with Adams River (forming headwaters Fort River), Amherst.	2.1	B	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High
34	Connecticut	MA34-61	Hop Brook	Headwaters, west of Oasis Drive, Belchertown to mouth at confluence with Fort River, Amherst.	8.6	B	010802010605	Fort River	66.47	12.34	51.4	68.51	23	Hampshire County-MA	4.5	21.3	34.15	0.27	0.95	High
34	Connecticut	MA34-33	Fall River	Vermont/Massachusetts border, Bernardston to mouth at confluence with Connecticut River, Greenfield/Gill.	10.2	B (CWF)	010802010502	Fall River	59.51	10.1	47.99	65.8	31	Franklin County-MA	8.2	0.0	89.76	0.08	0.32	Medium
34	Connecticut	MA34-57	Shattuck Brook	Headwaters, confluence Keets and Beaver Meadow brooks, Leyden to mouth at confluence with Fall River, Bernardston.	2.4	B (CWF)	010802010502	Fall River	59.51	10.1	47.99	65.8	31	Franklin County-MA	8.2	0.0	89.76	0.08	0.32	Medium
34	Connecticut	MA34-08	Temple Brook	Headwaters, outlet Bradley Pond, Monson to mouth at confluence with Scantic River, Hampden.	3.6	B	010802050201	Upper Scantic River	59.43	9.46	46.48	65.49	34	Hampden County-MA	5.3	27.8	67.80	0.23	0.91	High
34	Connecticut	MA34-18	Broad Brook	Headwaters, Holyoke to mouth at inlet Nashawannuck Pond, Easthampton.	9.3	B (CWF)	010802010609	Lower Manhan River	63.53	11.21	43.6	65.31	35	Hampshire County-MA	4.7	69.4	38.54	0.30	0.98	High
34	Connecticut	MA34-14	White Brook	Headwaters, perennial portion, Easthampton to mouth at inlet Nashawannuck Pond, Easthampton.	1.8	B	010802010609	Lower Manhan River	63.53	11.21	43.6	65.31	35	Hampshire County-MA	4.7	69.4	38.54	0.30	0.98	High

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34	Connecticut	MA34-37	East Branch Mill River	Headwaters, confluence with Bradford Brook, Williamsburg to mouth at confluence with West Branch Mill River (forming headwaters Mill River), Williamsburg.	2.8	B (CWF)	010802010606	Mill River	51.07	7.46	48.09	63.9	43	Hampshire County-MA	6.4	13.9	77.07	0.21	0.78	High
34	Connecticut	MA34-38	West Branch Mill River	East Street, Goshen to the confluence of Meekin Brook, Williamsburg.	5.9	B (CWF)	010802010606	Mill River	51.07	7.46	48.09	63.9	43	Hampshire County-MA	6.4	13.9	77.07	0.21	0.78	High
34	Connecticut	MA34-52	Joe Wright Brook	Headwaters south of Hemenway Trail, Williamsburg to mouth at confluence with Mill River, Williamsburg.	3.3	B (CWF)	010802010606	Mill River	51.07	7.46	48.09	63.9	43	Hampshire County-MA	6.4	13.9	77.07	0.21	0.78	High
34	Connecticut	MA34-51	Rogers Brook	Headwaters east of Oak Hill Road near the Goshen/Ashfield border to mouth at confluence with West Branch Mill River, Goshen.	2.6	B (CWF)	010802010606	Mill River	51.07	7.46	48.09	63.9	43	Hampshire County-MA	6.4	13.9	77.07	0.21	0.78	High
34	Connecticut	<b>MA34-32*</b>	<b>Mill River Diversion</b>	Headwaters, outlet Paradise Pond, Northampton to mouth at confluence with Oxbow (east of Old Springfield Road), Northampton (thru Hulberts Pond formerly segment MA34036).	2.5	B	010802010606	Mill River	51.07	7.46	48.09	63.9	43	Hampshire County-MA	6.4	13.9	77.07	0.21	0.78	High
34	Connecticut	MA34-39	West Branch Mill River	From the confluence of Meekin Brook, Williamsburg to mouth at confluence with East Branch Mill River (forming headwaters Mill River), Williamsburg.	0.6	B	010802010606	Mill River	51.07	7.46	48.09	63.9	43	Hampshire County-MA	6.4	13.9	77.07	0.21	0.78	High
34	Connecticut	MA34-33	Fall River	Vermont/Massachusetts border, Bernardston to mouth at confluence with Connecticut River, Greenfield/Gill.	10.2	B (CWF)	010802010503	Dry Brook-Connecticut River	40.65	8.41	59.26	63.83	46	Franklin County-MA	6.4	0.0	44.39	0.14	0.65	Medium

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34	Connecticut	MA34-56	Fourmile Brook	Headwaters, south of the intersection of Four Mile Brook Road and South Mountain Road, Northfield, to mouth at confluence with Connecticut River, Northfield.	3.4	B (CWF)	010802010503	Dry Brook-Connecticut River	40.65	8.41	59.26	63.83	46	Franklin County-MA	6.4	0.0	44.39	0.14	0.65	Medium
34	Connecticut	MA34-54	North Branch Manhan River	Headwaters, perennial portion, north of Northwest Road, Westhampton to mouth at confluence with Manhan River, Easthampton/Southampton.	9.2	B (CWF)	010802010607	North Branch Manhan River	46.43	5.77	50.83	63.83	47	Hampshire County-MA	5.9	3.7	76.59	0.18	0.74	Medium
34	Connecticut	MA34-53	Sodom Brook	Headwaters, outlet small unnamed pond north of Crowley Road, Westampton to mouth at confluence with North Branch Manhan River, Westampton.	3.1	B (CWF)	010802010607	North Branch Manhan River	46.43	5.77	50.83	63.83	47	Hampshire County-MA	5.9	3.7	76.59	0.18	0.74	Medium
34	Connecticut	MA34-47	Rice Brook	Headwaters, perennial portion, south of Burt Road, Westhampton to mouth at confluence with Sodom Brook, Westhampton.	1.1	B (CWF)	010802010607	North Branch Manhan River	46.43	5.77	50.83	63.83	47	Hampshire County-MA	5.9	3.7	76.59	0.18	0.74	Medium
34	Connecticut	MA34-64	Dry Brook	Headwaters, west of Huckle Hill Road, Bernardston to mouth at confluence with the Connecticut River, Gill.	8.3	B	010802010503	Dry Brook-Connecticut River	40.65	8.41	59.26	63.83	46	Franklin County-MA	6.4	0.0	44.39	0.14	0.65	Medium
36	Chicopee	MA36-02*	West Branch Ware River	Headwaters, outlet Brigham Pond, Hubbardston to mouth at confluence with East Branch Ware River (forming headwaters of Ware River), Barre.	4.5	A (PWS, ORW)	010802040201	West Branch Ware River	59.95	4.89	55.63	70.23	17	Worcester County-MA	3.6	0.0	94.63	0.14	0.67	Medium
36	Chicopee	MA36-44	Joslin Brook	Headwaters, outlet Lovewell Pond, Hubbardston to mouth at confluence with Mason Brook, Hubbardston.	3.3	A (PWS, ORW)	010802040201	West Branch Ware River	59.95	4.89	55.63	70.23	17	Worcester County-MA	3.6	0.0	94.63	0.14	0.67	Medium

\* 3 or more freshwater mussel species (Carmignani 2020)

Basin ID	Basin Name	Segment ID	Waterbody Name	Description	Size (miles)	Class (Qualifiers)	HUC12 Number	HUC12 Name	Ecological Index	Stressor Index	Social Index	RPI Score	RPI Rank	Majority County	Slope_Mean_Value_in_HUC12_Watershed	Perc_MS4_in_HUC12_Watershed	PHWA_HEALTH_NDX_PCT_2016	PHWA_VULN_NDX_ST_2016	Vulnerability Percentile Only Prioritized Waterbodies	Vulnerablilty Status (within prioritized waterbodies only)
36	Chicopee	MA36-35*	East Branch Swift River	Headwaters, confluence of Shattuck and Popple Camp brooks, Phillipston to mouth at inlet Pottapaug Pond, Petersham (through Connor Pond formerly segment MA36039).	9.8	A (PWS, ORW)	010802040102	Headwaters East Branch Swift River	64.25	4.38	48.48	69.45	20	Worcester County-MA	4.9	0.0	85.85	0.10	0.49	Medium
36	Chicopee	MA36-46	Bottle Brook	Headwaters, perennial portion, east of Dunhamtown Brimfield Road, Brimfield to mouth at confluence with Quaboag River, Brimfield.	2	B	010802040305	Middle Quaboag River	63.85	6.71	47.54	68.23	24	Worcester County-MA	6.2	0.0	80.00	0.21	0.83	High
36	Chicopee	MA36-48	Kings Brook	Headwaters, west of Saint John Street, Palmer to mouth at confluence with Quaboag River, Palmer.	3.3	B	010802040305	Middle Quaboag River	63.85	6.71	47.54	68.23	24	Worcester County-MA	6.2	0.0	80.00	0.21	0.83	High
36	Chicopee	MA36-47	East Branch Fever Brook	Headwaters, outlet Brooks Pond, Petersham to mouth at inlet Quabbin Reservoir, Petersham.	5.2	A (PWS, ORW)	010802040103	East Branch Fever Brook	51.05	2.32	48.63	65.79	32	Worcester County-MA	4.8	0.0	93.66	0.11	0.61	Medium
41	Quinebaug	MA41-07	Mill Brook	From inlet of Mill Road Pond (formerly pond segment MA41032), Brimfield to mouth at confluence with Quinebaug River, Brimfield.	4.7	B	011000010102	Headwaters Quinebaug River	64.34	6.24	32.9	63.66	49	Hampden County-MA	5.5	2.0	73.66	0.24	0.91	High
41	Quinebaug	MA41-08	Wales Brook	Headwaters, outlet Lake George, Wales to mouth at confluence with Mill Brook, Brimfield.	5.2	B	011000010102	Headwaters Quinebaug River	64.34	6.24	32.9	63.66	49	Hampden County-MA	5.5	2.0	73.66	0.24	0.91	High
41	Quinebaug	MA41-18	Mountain Brook	Headwaters, east of Steerage Rock Road (excluding intermittent portion), Brimfield to mouth at confluence with Mill Brook, Brimfield.	1.9	B	011000010102	Headwaters Quinebaug River	64.34	6.24	32.9	63.66	49	Hampden County-MA	5.5	2.0	73.66	0.24	0.91	High
41	Quinebaug	MA41-24	Hollow Brook	Headwaters, west of Hollow Road, Wales to mouth at confluence with Mill Brook, Brimfield.	2.7	B	011000010102	Headwaters Quinebaug River	64.34	6.24	32.9	63.66	49	Hampden County-MA	5.5	2.0	73.66	0.24	0.91	High

\* 3 or more freshwater mussel species (Carmignani 2020)

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41	Quinebaug	MA41-26	Unnamed Tributary	Unnamed tributary locally known as 'Freeman's Brook' from headwaters west of Cronin Road, Warren to an unnamed tributary to Long Pond, Sturbridge.	2.6	B	011000010102	Headwaters Quinebaug River	64.34	6.24	32.9	63.66	49	Hampden County-MA	5.5	2.0	73.66	0.24	0.91	High
41	Quinebaug	MA41-27	Unnamed Tributary	Unnamed tributary to Mill Brook, headwaters south of East Hill Road, Brimfield to mouth at confluence with Mill Brook, Brimfield.	1.7	B	011000010102	Headwaters Quinebaug River	64.34	6.24	32.9	63.66	49	Hampden County-MA	5.5	2.0	73.66	0.24	0.91	High
81	Nashua	MA81-77	Trapfall Brook	Headwaters, north of Jones Hill Road, Ashby to mouth at confluence with Willard Brook, Ashby.	5.5	B (ORW)	010700040301	Willard Brook	63.28	6.33	37.94	64.96	39	Middlesex County-MA	5.5	3.6	54.15	0.25	0.95	High
81	Nashua	MA81-78	Locke Brook	From New Hampshire border, Ashby to mouth at confluence with Willard Brook, Townsend.	4.4	B (ORW)	010700040301	Willard Brook	63.28	6.33	37.94	64.96	39	Middlesex County-MA	5.5	3.6	54.15	0.25	0.95	High

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